NORTH CAROLINA Medical Journal

Vol. 19 No. 8
August, 1958

IN THIS ISSUE:

SCHEDULE OF COMMITTEE APPOINTMENTS, 1958-59

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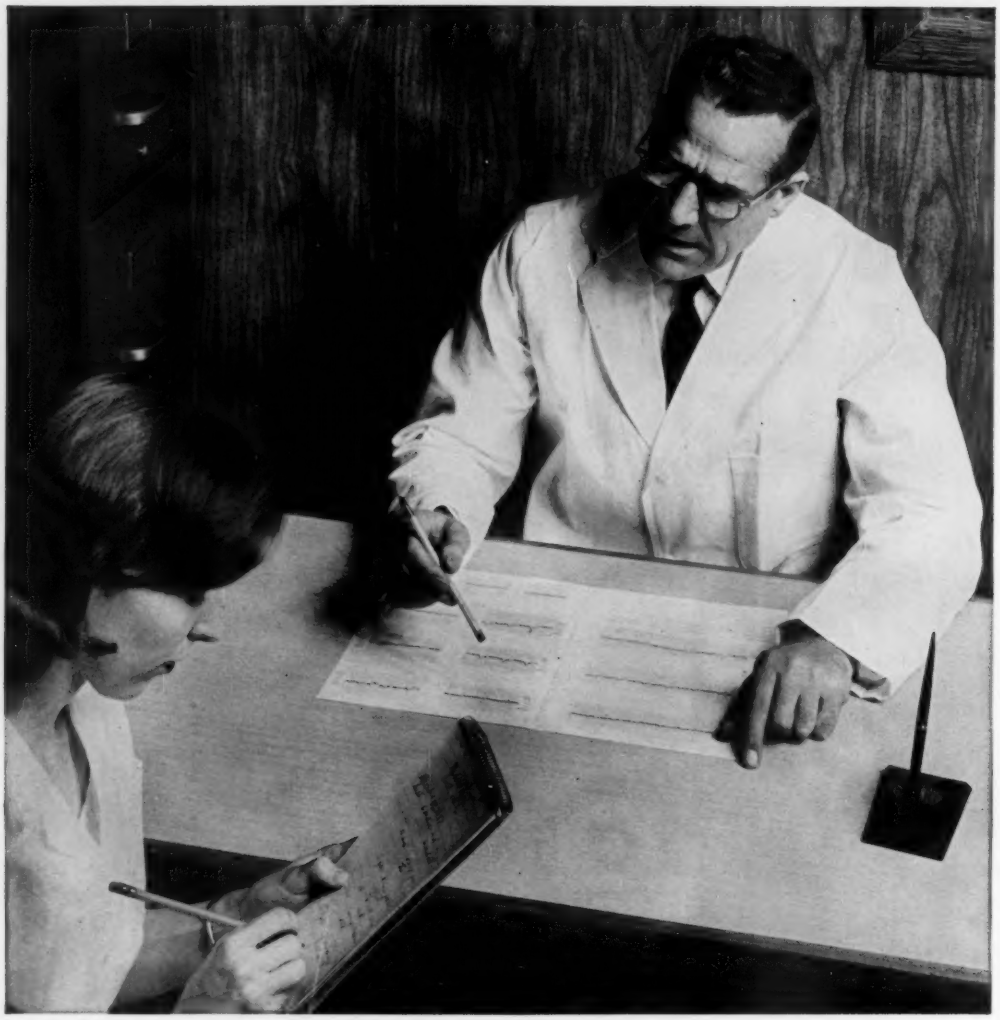
Table of Contents, Page II



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Official Organ of

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NUMBER 8

AUGUST, 1958

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CONTENTS

ORIGINAL ARTICLES

Oral Hypoglycemic Agents in the Treatment of Diabetes Mellitus—Howard F. Root, M.D. 293

The Signicifance of Vesicoureteral Reflux in Children—Victor A. Politano, M.D. . . . 297

A Practical Approach to the Diganosis of Hand Injuries—James B. Wray, M.D. . . 304

Term Delivery Associated with an Abdominal Lithopedion — James W. Johnston, M.D., John Robert Kernodle, M.D., and Charles L. Sau Sauners, M.D. 309

Concealed Hemorrhage with Hemorrhagic Diathesis: Report of a Case—Trent Busby, M.D. 313

Subarachnoid Hemorrhage at Cesarean Section: A Case Report—Courtney D. Egerton, M.D., and Robert J. Ruark, M.D. 315

The Medical Spectator 317

EDITORIALS

The Governor's Coordinating Committee on Aging 318

Diamond Anniversary of the Journal of the American Medical Association 319

The National Health Service After Ten Years 320

COMMITTEES AND ORGANIZATIONS

Schedule of Committee and Commission Appointments, 1958-1959 322

BULLETIN BOARD

Coming Meetings 329

New Members of the State Society 329

News Notes from the Bowman Gray School of Medicine of Wake Forest College . . . 329

News Notes from the Duke University School of Medicine 329

National Nephrosis Foundation, North Carolina Chapter 331

County and District Societies 331

News Notes 331

Announcements 331

BOOK REVIEWS

335

IN MEMORIAM

336

INDEX TO ADVERTISERS

LV

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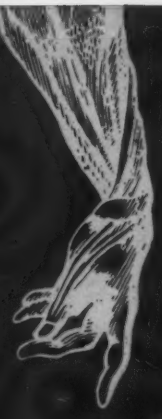
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2



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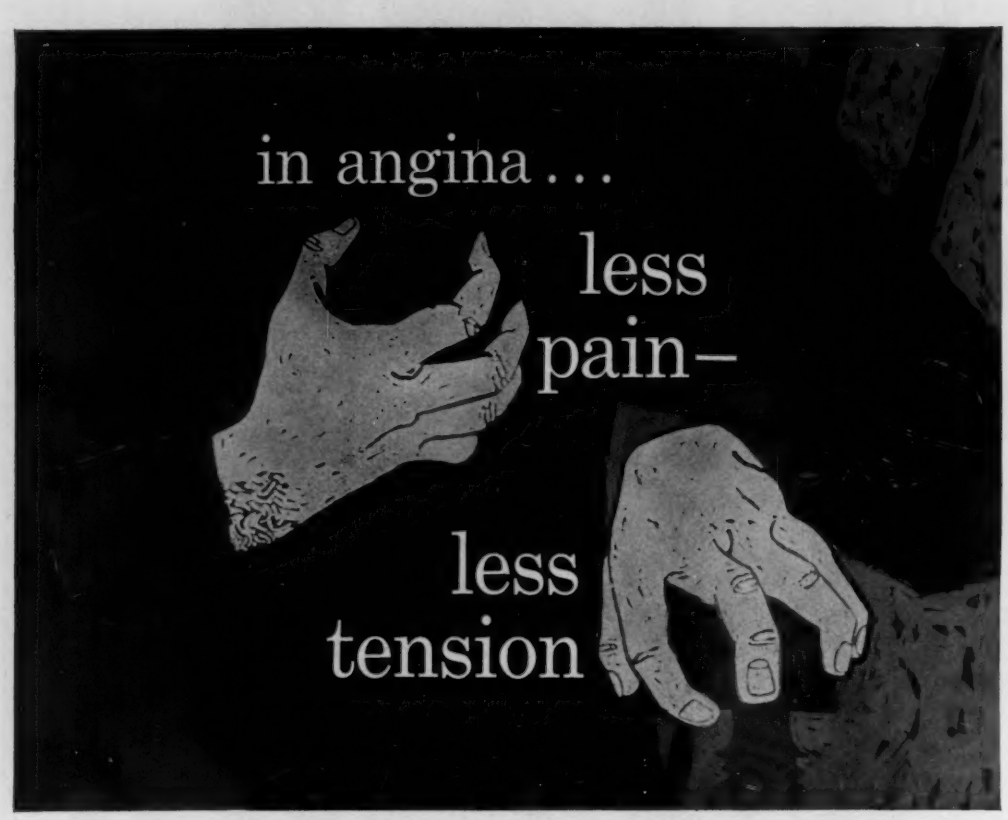

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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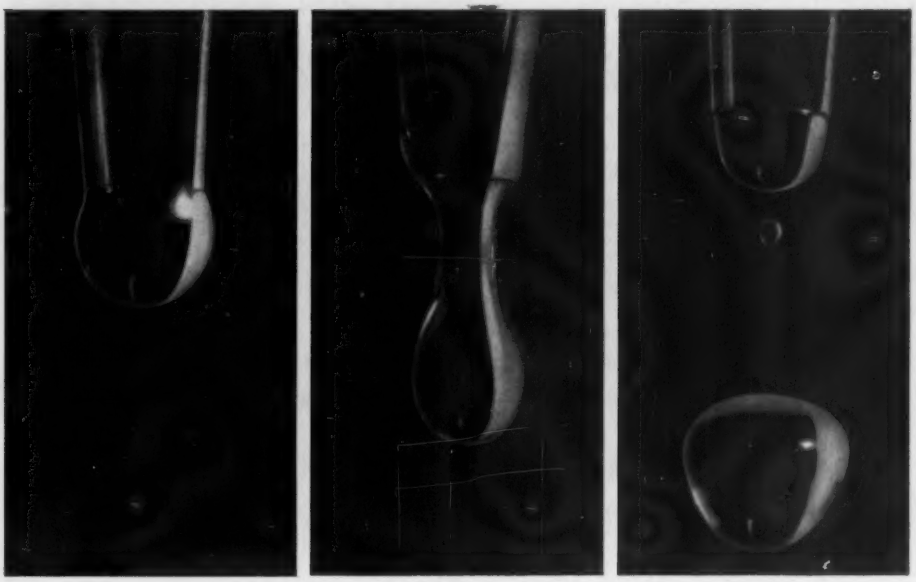

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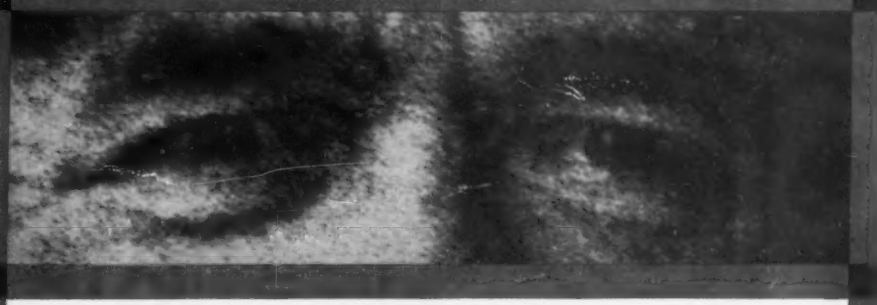

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Source—Hyman, M.: Some Aspects of Psychiatry in General Practice, GP *16*:83 (Oct.) 1957.

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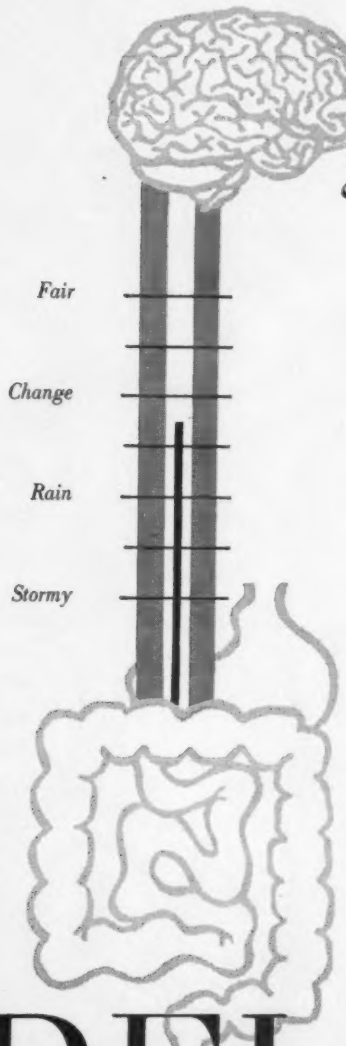

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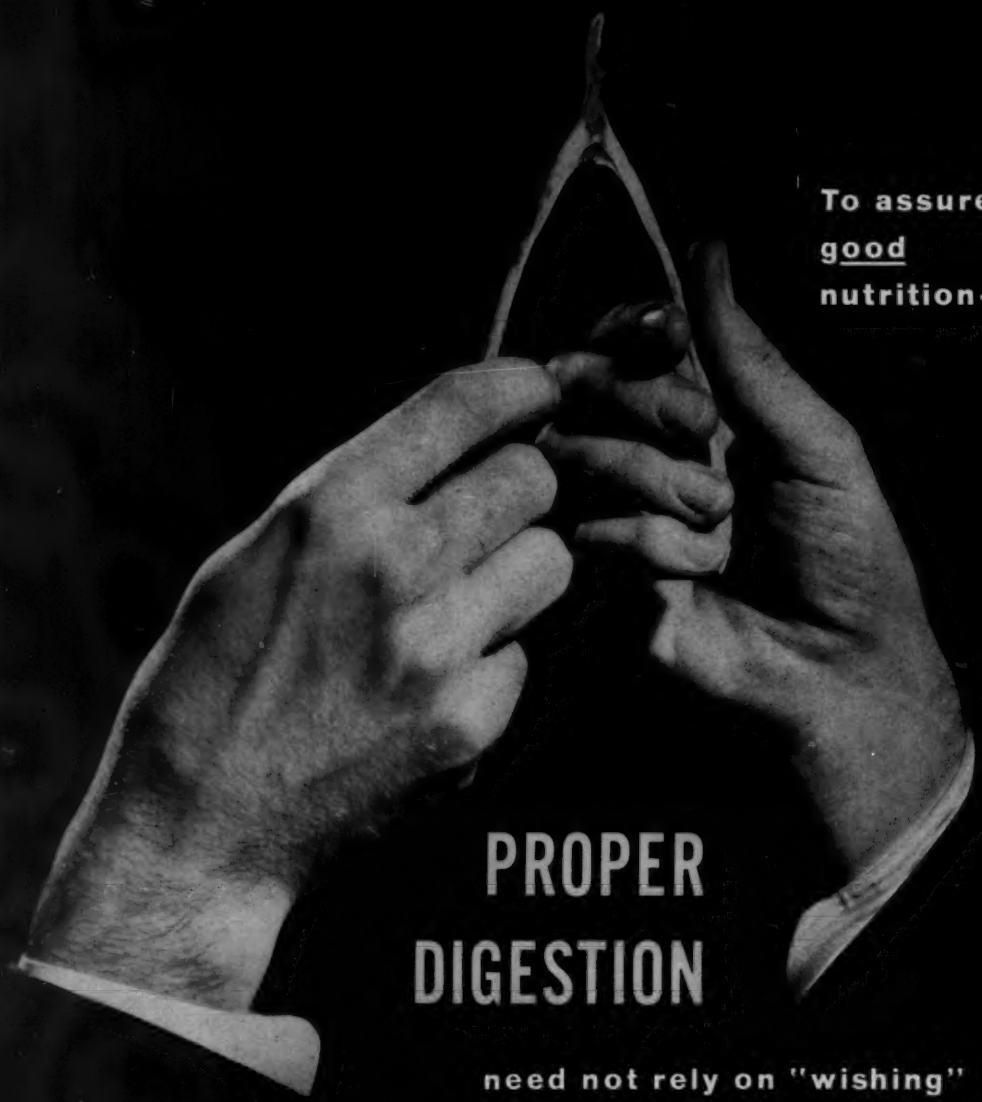

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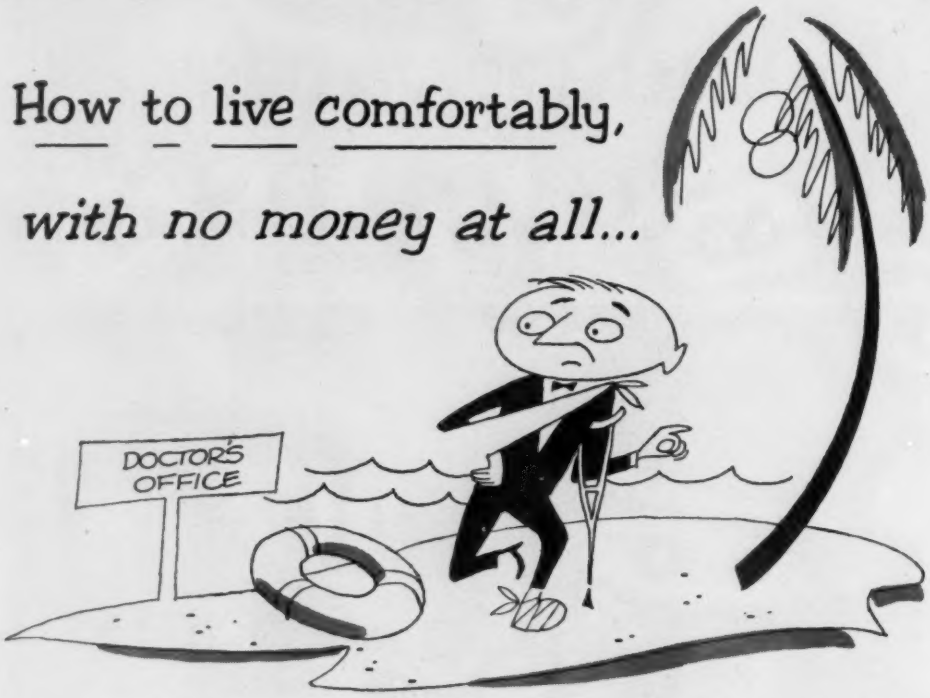

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Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

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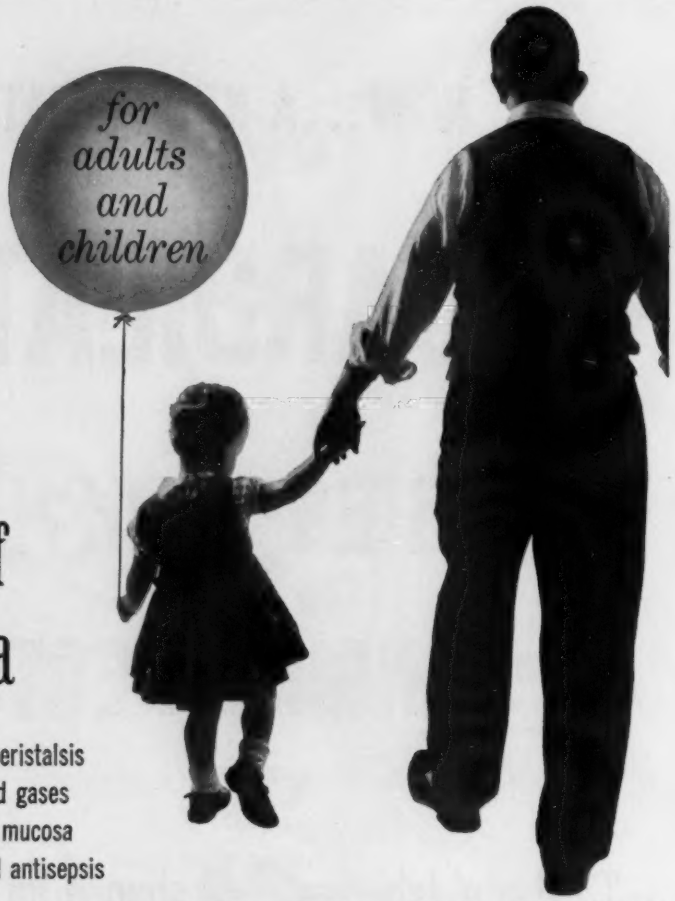

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- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis

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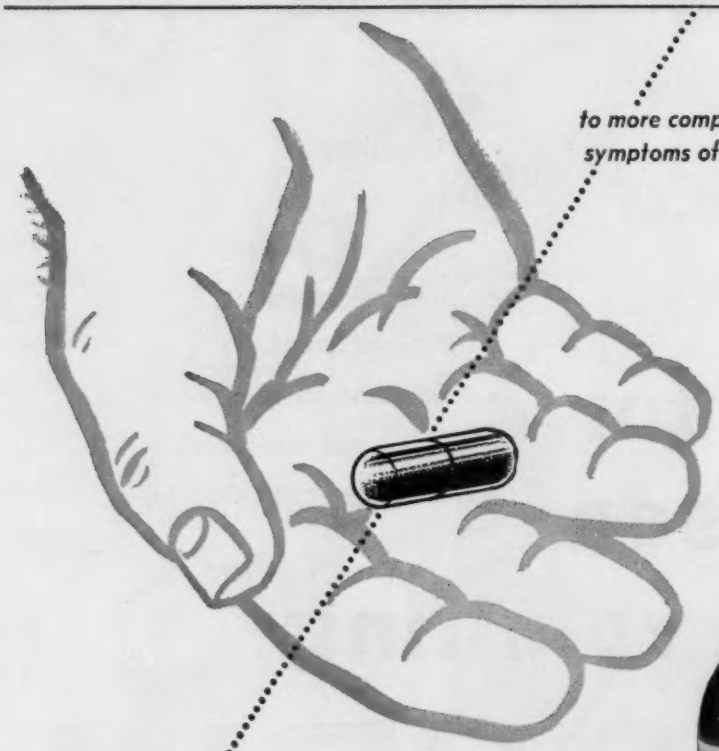

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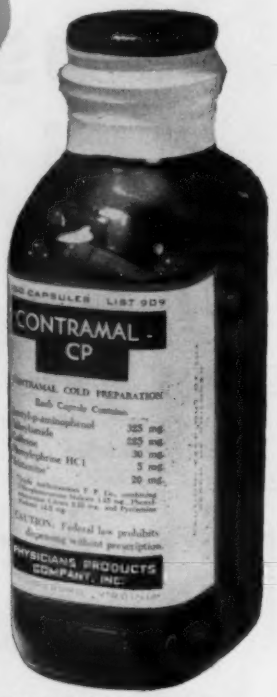

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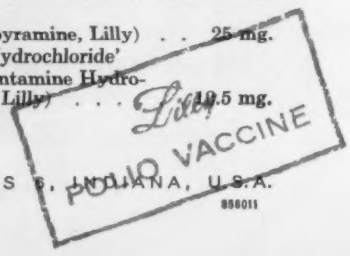

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Oral Hypoglycemic Agents in the Treatment Of Diabetes Mellitus

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BOSTON, MASSACHUSETTS

Observations upon nearly 1,500 diabetic patients who have received oral hypoglycemic agents since November, 1955, have both stimulated expectation of further discoveries and at the same time placed limits upon their use. The oral treatment has inspired in the minds of patients and doctors hope of greater advances and has stimulated research in an extraordinary degree.

Shortly before the discovery of insulin it was noted that tetany following parathyroidectomy may be accompanied by hypoglycemia and by increased levels of guanidine in the blood[1]. Frank, Stern, and Nothman[2] noted in 1921 that in experimental animals guanidine produced spasms and convulsions associated with hypoglycemia which did not respond promptly to glucose. In a series of three papers they reported that a higher homologue of guanidine, beta - methylene - biguanidine (Synthalin) produced convulsions in dogs which responded to intravenous glucose. Synthalin given in doses of 30-50 mg. daily decreased glycosuria, and there were various reports of success in treating mild to moderate diabetic patients. Although the discovery in 1921 of insulin, with its superior physiologic effect, lessened the interest in Synthalin, it continued to be studied, and a series of successes along with some criticism were reported during the years until 1929. Continued reports of its toxic effect, especially on the liver of animals, were made; but it was probably the extraordinary effects of insulin which finally displaced Synthalin in the attention of students of diabetes at that time.

Other instances of hypoglycemic effects obtained in the use of various substances have been reported. Thus Blotner and Murphy reported that an aqueous liver extract could produce a definite decrease in blood sugar level. They did not, however, isolate a blood sugar-reducing substance from the extract. Extracts of blueberry leaves appeared to improve carbohydrate tolerance; and this substance, called Myrtillin, had a short life. Other plant extracts have been reported but never proven effective.

Arylsulfonylurea Compounds

The earliest observations on these compounds were those of Janbon and associates[3], working at Montpelier, France. They, together with Loubatieres and others[4], presented their results at the Congress in 1942. Chen, Anderson, and Maze, in the laboratories of Eli Lilly Company, found that sulfanilamido-cyclopropyl-thiazole had a blood sugar lowering effect in rabbits. Significant clinical application of these findings was made in 1954 when, in Berlin, Franke and Fuchs, while testing the antibacterial activity of a new compound, designated as BZ-55, noted that the subject developed hunger, sweating, and tremor, suggesting hypoglycemia. Later the blood sugar was indeed found to be low. Their use of the drug in diabetic patients met with success in many; and eventually thousands of patients in Germany, this country, and South America received clinical trial.

Carbutamide (BZ-55): This drug, introduced in the United States and Canada in

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1955, was distributed for clinical trial by Eli Lilly Company, and during the following year 7,000 persons received this drug from their physicians. It was found to be a potent hypoglycemic agent in certain responsive individuals, but later the incidence of toxic effects proved higher than anticipated. It was, therefore, withdrawn.

Chlorpropamide (Compound T-607):

The last of the sulfonylurea compounds, which is on clinical trial at present, is this substance which resembles tolbutamide (to be discussed later) except for the substitution of a chlorine atom for the CH_2 at one end of the benzol ring and a propyl instead of a butyl characterization. Chlorpropamide has been used so far in but a few patients. Apparently it is somewhat more effective than Orinase in reducing the blood sugar level, so that at present in our testing of patients we use as a test dose only 1.5 Gm. instead of 3.0.

Experience with Tolbutamide

Under the name of Orinase this substance has been used widely in the United States. Our experience began in February of 1956. Selection of patients for its use has been made by various methods in various clinics.

1. Clinical trial: Here insulin has gradually been substituted by Orinase without any preliminary testing.

2. Evaluation of the type of diabetes with reference to ketosis:

Duncan[5] has proposed that patients be selected according to the ease with which they develop ketosis. He has suggested withdrawing insulin in patients in the hospital and determining how many hours are required before the appearance of diacetic acid and acetone in the urine. In those in whom significant ketonuria appears in eight hours, tolbutamide is considered to be contraindicated.

3. The response test: Interpretations of this four-hour test are perhaps varied. Our practice has been to omit insulin on one day; on the second day we omit it again and the patient comes to the physician's office in the fasting state. A blood sugar determination is made, and then the patient receives 3.0 Gm. of Orinase by mouth. The blood sugar is determined at two and four hours thereafter. At first we accepted as a good response a 25 per cent decline in the level of blood sugar. At present the simplest and most satisfactory rule is to require that the blood sugar level, regardless of its initial height, should fall to normal within four hours after 3.0 Gm. of tolbutamide is given. When this method of selecting patients has been employed, in general it has been true that the use of the drug in place of insulin was reasonably satisfactory. Certainly such patients have not developed ketosis later on. An important rule should be made, however, and that is that a patient should not leave the physicians' office on the day of the test until the blood sugar reports have been obtained, since in patients who are unresponsive to the test ketosis may develop and require insulin. This can be given before the patient leaves the office.

Factors influencing success with Orinase[6]

Up to November 10, 1957, 1,030 diabetic patients had received tolbutamide. In 772 of these, treatment with tolbutamide had been begun. Other patients of the group had only the single dose given in the response test. Of the 772 patients, 594 had received treatment for 1 to 20 months up until the time of the survey. In the selected group of 772 patients, good control was obtained in 407, or 52.6 per cent, and fair control in 143, or 18.5 per cent. The incidence of failures included the primary failures, secondary or late failures, and failures due to dietary violations.

Definitions of control may be arbitrary. In the patients receiving Orinase at the Deaconess Hospital, follow-up over a period of a year or more has been evaluated according to the following standards:

Patients whose blood sugar levels in 75 per cent of the determinations, taken before breakfast, before lunch, or before the evening meal, were 130 mg. or less, with less than 10 Gm. of sugar in the urine for the 24-hour period, have been considered in good control. Patients with blood sugar levels ranging between 130 and 150 mg. for the same period were considered to be in fair control, and all others in poor control.

Dosage after the first test day has not exceeded 2.0 Gm. daily, and in general the average has been 1.5 Gm. per day.

Success seems to be favored by the selection of patients with onset of diabetes in maturity, or better still above the age of 40 years. Success in the use of these drugs with children has been the exception, and

only for brief periods in patients shortly after the onset of diabetes or in children with a definite remission of the disease. Certainly the use of oral drugs as a substitute for insulin cannot be recommended.

Many tests of liver function have been carried out and no significant abnormality has been found, except in the case of the alkaline phosphatase test. Here determinations done after a month or so often showed a slight rise. This value was maintained for a period, but eventually returned to normal without any jaundice or other evidence of hepatic toxicity.

The general experience is that Orinase decreases glycosuria and hyperglycemia in three fourths of adult patients with a late onset of diabetes. In general, the drug may be substituted for about 10 to 30 units of insulin, making the dose between 1.0 and 2.0 Gm. per day. On withdrawal of the drug, particularly in patients who have been under careful dietary treatment, the effect seems to persist. Sometimes it is not possible to distinguish between the benefit derived from better cooperation of the patient in carrying out dietary instruction under conditions of experimental use of the drug, and the actual drug effect.

In childhood diabetes[7] of more than two or three years' duration, little or no effect is obtained. Exceptions were reported from the studies in children at the Joslin Diabetic Camp, indicating that in the early stages of juvenile diabetes—that is, in the first few months—there may still be production of insulin by the pancreas, and in those children responses to the four-hour test are a frequent occurence. It is well known, however, that in the pancreas of juvenile diabetics after three of four years of the disease, insulin secretion is less than 10 per cent, and frequently none can be obtained; whereas in an adult diabetic patient, insulin secretion is well above 30 per cent of normal.

Mechanism of Action

1. The active sulfonylurea compounds, in general, exhibit a blood sugar-lowering effect which depends, within limits, on the dosage.

2. The sulfonamide group, apparently, is the most active, although many methyl-ethyl-hexyl compounds could be employed with much less success.

3. Little effect is seen in cases of diabetes following pancreatectomy, or in patients with genuine insulin insensitivity, or in the hyperglycemia after adrenalin and glucagon.

4. These drugs probably do not act by inhibiting glucagon secretion and damaging the alpha cells. There is little evidence that they act by depressing insulin antagonists. It is pretty clear that the sulfonylureas, including Orinase, can depress the action of the hepatic enzyme systems which operate upon the transformation of such substances as fructose to glucose. They probably inhibit the action of the proteolytic enzymes known as insulinase, although this effect has not been confirmed.

5. That these drugs act by the release of insulin from the beta cells is the hypothesis at present most generally accepted. It depends upon various facts. Thus degranulation of beta cells has been noted following the use of Orinase. The injection of Orinase into the pancreatic artery is followed by a fairly rapid decline in the level of blood sugar in the pancreatic vein. Indeed preliminary studies indicate that actually the amount of insulin in the pancreatic vein may be slightly increased following the injection of Orinase into the pancreatic artery. However, measurements of the insulin content of the blood are extremely difficult, owing to the extremely low concentration of insulin in either the peripheral blood or the pancreatic vein, where it is two or three times as high as in the peripheral blood. It has been thought that, since Orinase does not usually affect glucose uptake in the periphery except as recently reported, the sulfonylurea drugs do not act exactly like insulin, especially in their lack of effect during ketosis and of any marked effect upon protein metabolism. It has recently been said that if Orinase does stimulate the release of glucose from the islet cells, then there should be some more definite evidence of insulin action upon ketosis or other factors. It should be remembered that the concentration of insulin in the pancreas varies from 1.7 units per gram of weight to as much as 7.0 units per gram of weight in humans or animals, whereas the concentration of insulin in the peripheral blood is measured in micro-units, or millionths of a unit. Its measurement, therefore, is extremely difficult and in the past has re-

quired the use of physiologic—not chemical —methods.

Recently the method of measuring insulin by its effect upon the transformation of labeled glucose into fat in the rat epididymis has proven a more accurate method, according to the results of Renold and Martin of the Baker Clinic Laboratory. In the Second Symposium on Orinase, Pfeiffer and Steigarwald[8] reported from Frankfurt that in calves a correlation between changes in blood sugar, pancreatic insulin content, and islet cell morphology has been observed. It has also been noted that a rise in the level of pyruvate and lactic acid accompanied the hypoglycemia, which would be consistent with an increased activity of insulin during its action.

It is well to remember that diabetes is not synonymous with hyperglycemia and glycosuria. It is an hereditary disorder in which there are frequently evidences of other hereditary factors in addition to those features which are so prominent clinically. Furthermore, it is a disease in which major metabolic defect is most strikingly demonstrated in the skeletal muscles in the failure of utilization of glucose. The rise in blood glucose and glycosuria is principally consequent upon this. Other defects are undoubtedly present, and notably there may be a defect in the release of glucose from the liver. Basically, however, the mere reduction of hyperglycemia, unless it be accompanied by other physiologic defects, would hardly justify the use of an oral substitute. Such an oral substitute should be free from toxic effects, as is insulin, and should have, in addition to the blood sugar-lowering effect, the power of controlling ketosis, and the beneficial effects upon growth and protein metabolism which characterize insulin as a major anabolic hormone.

Biguanides

As long ago as 1929 Slotter and Tschesche reported the hypoglycemic action of some lower alkyl derivatives of biguanides when given orally. In 1957 observations of Ungar, Freedman and Shapiro[9], together with clinical reports by Pomeranze and Mouratoff[10], gave further information about the effect of certain biguanide substances. Phenethylbiguanide (DBI) is a biguanide derived from a formamide. Two closely allied analogues known as DBTU and DBB exist. These drugs have been administered to more than 200 patients at the Joslin Clinic, ranging in age from 5 to 80 years. Criteria for the blood sugar lowering effect included the fact that in patients requiring both insulin and DBI the insulin dose must be reduced by 50 per cent or more. Those previously maintained on insulin were patients in whom the insulin could be replaced entirely by DBI and the blood sugar values remain as good or better than on previous treatment, and indeed it was required that patients receiving no insulin had to show an average fall in blood sugar levels of 25 per cent or more. To date no evidence of true systemic toxicity existed in the series of patients.

Twenty-five to 30 per cent of patients to whom these drugs were given, however, showed very definite and marked gastrointestinal symptoms, including loss of appetite, nausea, vomiting, and/or diarrhea. In a summary of the use of oral hypoglycemic agents[11], it was pointed out that among 173 patients, including 53 cases of juvenile onset, the effects of the drug were evaluated for periods varying from a few weeks to 17 months. Eighty-eight per cent showed lower blood sugar levels than under insulin treatment alone. Thirty-eight per cent, however, were unable to continue the drug because of the gastrointestinal side-effects. No hematologic, renal, or hepatic toxic effects were observed. This drug, apparently, acts best in the presence of insulin, and the most notable results were in a small group of unstable diabetic patients, either juvenile or mature cases, in whom it was possible to reduce the insulin dose by one-half or two-thirds, and then with 200-400 mg. of DBI given orally to avoid insulin reactions and maintain reasonable control[12].

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The Significance of Vesicoureteral Reflux in Children

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Before entering any discussion on the significance of vesicoureteral reflux, it may be well to define this condition. Reflux is the regurgitation of urine, once it has entered the bladder, into the ureter. This interesting problem presents a number of questions that need to be answered. Does reflux occur normally? That is, does it occur in the absence of urologic complaints, or should we look upon it as abnormal? What is the etiology? How does one recognize its presence? What treatment is necessary? Is it really of sufficient clinical significance to justify treatment?

Occurrence

Campbell[1], in his survey of 722 cystograms done in infants and children, did not find reflux in the absence of other demonstrable uropathy. Gibson[2] found reflux present in only 2 of 42 children whose urinary tracts were apparently normal. In our own rather large series of cystograms done in normal children—that is, children without urologic symptoms—we have not demonstrated reflux in a single case to date. This absence of reflux in normal children is impressive when compared to the frequency with which it occurs in children with demonstrable or co-existing uropathies. Bumpas[3] observed reflux in 8.6 per cent of cystograms showing other urologic problems. Twelve per cent of cystograms reviewed by Campbell demonstrated reflux in children with co-existing urologic diseases. St. Martin and others[4] noted reflux in 13.5 per cent of children investigated because of urologic symptoms. From the foregoing, it is probably safe to assume that refflux does not occur normally or in the absence of some other urologic disease.

Diagnosis

When should one suspect the existence of vesicoureteral reflux and how is the diagnosis made? Every child with repeated urinary tract infections, residual urine, unexplained fever, vague abdominal complaints, or flank pain should be studied for this possibility. The diagnosis is usually simple, and is demonstrated by cystography. A small catheter is introduced through the urethra into the bladder, and from 60 to 100 cc. of sodium iodide or a similar contrast substance is injected into the bladder. The catheter is removed, and the child is instructed not to void for 20 to 30 minutes. An x-ray film is taken at the end of this time. If reflux is not demonstrated in the delayed cystogram, an exposure is taken while the child is voiding. In our experience, voiding cystourethrograms have been more informative than delayed cystograms alone. In the very young child it may be difficult

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to get a good voiding film and a delayed cystogram will have to be sufficient.

Etiology

The exact mechanisms responsible for vesicoureteral reflux are not known. Several factors may contribute or be responsible for its occurrence. In most instances, infection is present and may be the presenting symptom. It may produce fibrosis and fixation of the ureter with loss of elasticity of the intramural ureter. Congenital anomalies such as ectopic ureteral orifices, maldevelopment of the trigone, or decrease in the length or obliquity of the intramural ureter may be responsible. Children with neurogenic disorders of the bladder or lower ureteral segments frequently demonstrate reflux. Obstruction to the vesical outlet such as contractures, median bars, posterior ureteral valves, or strictures is an important contributing cause. Reflux may result from trauma to the intramural ureter incident to surgery of ureteroceles, meatotomies, or transurethral resections.

Management

Once the diagnosis has been established, every effort should be made to eliminate the process, which if allowed to continue, will inevitably destroy the kidney. Infections, when present, should be eradicated. This may be difficult or even impossible in the presence of large, dilated, tortuous ureters or of residual urine. Neurogenic disorders should be corrected with appropriate drug therapy when possible. Residual urine secondary to vesical neck obstruction must be eliminated. Some children may benefit by multiple voidings. Others may require only urethral dilatations, while others may need transurethral or open resection of the vesical neck or other obstructing lesion. Every conservative effort to eliminate reflux should be attempted first. If the more conservative measures have failed to resolve the problem, a direct attack on the intramural ureter may be necessary. The creation of a submucosal tunnel, which we described about two years ago, has been most successful in correcting vesicoureteral reflux without producing obstruction to the efflux of urine[5].

Case 1

The patient was a 4 year old white girl admitted with a five-month history of intermittent fever with temperature elevations to 105 F. occurring every three to four days. She had mild irritative symptoms on voiding, consisting of burning and frequency. Her fever was controlled with Gantrisin, which she had been taking for six weeks prior to admission.

On physical examination her temperature was 100.2 F., pulse 90, respirations 25, and blood pressure 98 systolic, 76 diastolic. She was a small but otherwise normally developed child.

Laboratory studies showed a hemoglobin of 12.6 Gm. with a white blood count of 11,000. Her urinalysis contained 20 to 25 white blood cells and 10 red blood cells per high powered field. The nonprotein nitrogen was 34 mg. per 100 cc.

Intravenous pyelograms (fig. 1a) showed slight hydronephrosis of a double left kidney with blunting of the calyces. There was partial reduplication of the left ureter. A cystogram (fig. 1b) demonstrated immediate ureteral reflux on the left.

On cystoscopic examination the left ureteral orifice was found to be lateral to the trigone and sitting high on the left lateral portion of the bladder wall. The right ureteral orifice was in its normal anatomic position. The bladder outlet was considered normal.

The diagnosis was ectopic ureteral insertion with ureteral reflux and pyelonephritis on the left side.

Treatment consisted of reimplantation of the left ureter by creation of a submucosal tunnel. This successfully corrected the vesicoureteral reflux (fig. 1c). Postoperative intravenous pyelograms showed good excretion from the left kidney without evidence of obstruction (fig. 1d). The child has remained asymptomatic for a period of 20 months. Microscopic examination of urine was negative, and cultures have been sterile.

Case 2

A 12 year old white boy was referred because of bilateral hydroureters and hydronephrosis. There was a two-year history of enuresis. Eight months prior to his admission at the first hospital fever, chills, nausea, and vomiting developed. There was right flank pain, which was often relieved by voiding. His studies at that time revealed a bilateral hydronephrosis. A diagnosis of vesical neck obstruction was made, and a partial cystectomy and Bradford - Young procedure were performed. He was kept on suprapubic catheter drainage over a long period to allow the upper urinary tract to drain more adequately. On removal of the suprapubic catheter, his symptoms recurred. The hydronephrosis became progressive. On admission to this hospital he was found to carry residual urine of between 150 to 200 cc. A diagnosis of posterior urethral valves was made, and these were resected. This procedure eliminated the residual urine and enuresis. Because of the marked hydronephrosis and hydroureters, he was kept on catheter drainage for an additional five months.

On physical examination his temperature was 98 F., pulse 100, respirations 25, blood pressure, 120 systolic, 80 diastolic. He was a well nourished

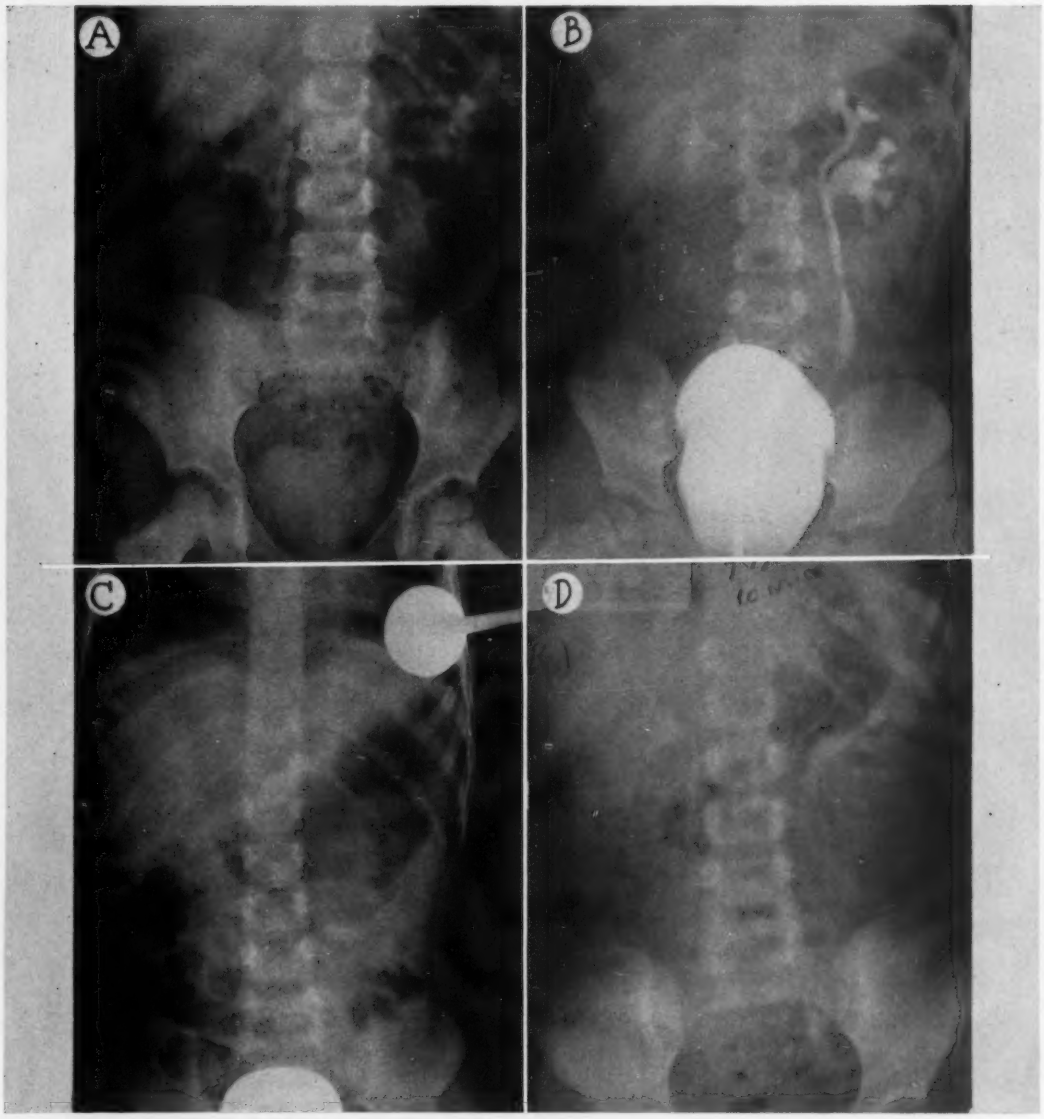

Figure 1

A. Preoperative intravenous pyelograms showing blunting of calyces on the left with a bifid kidney and ureter. B. Preoperative cystogram-reflux, left. Contrast media in the right pelvis represents continued excretion from intravenous pyelograms. C. Postoperative cystogram demonstrates absence of reflux. D. Postoperative intravenous pyelogram shows essentially same calyceal pattern as preoperative films.

boy, but small for his age. There was a well healed lower abdominal scar.

Laboratory studies showed a hemoglobin of 15.6 Gm. and a white blood count of 11,800. The urine was loaded with white blood cells and an occasional red blood cell. Urine cultures grew **Escherichia coli** and **Proteus vulgaris.** Non-protein nitrogen was 24 mg per 100 cc.

Intravenous pyelogram (fig. 2a) demonstrated advanced hydronephrosis and hydroureters bilaterally. There was a lateral displacement of the sacrum and coccyx to the right. Cystograms (fig. 2b) revealed immediate bilateral vesicoureteral reflux with dilation of the ureters and calyces.

Cystoscopy revealed a trabeculated bladder with chronic cystitis and inflammatory changes. The vesical neck and prostatic urethra appeared normal.

Cystometrograms were unsatisfactory because of

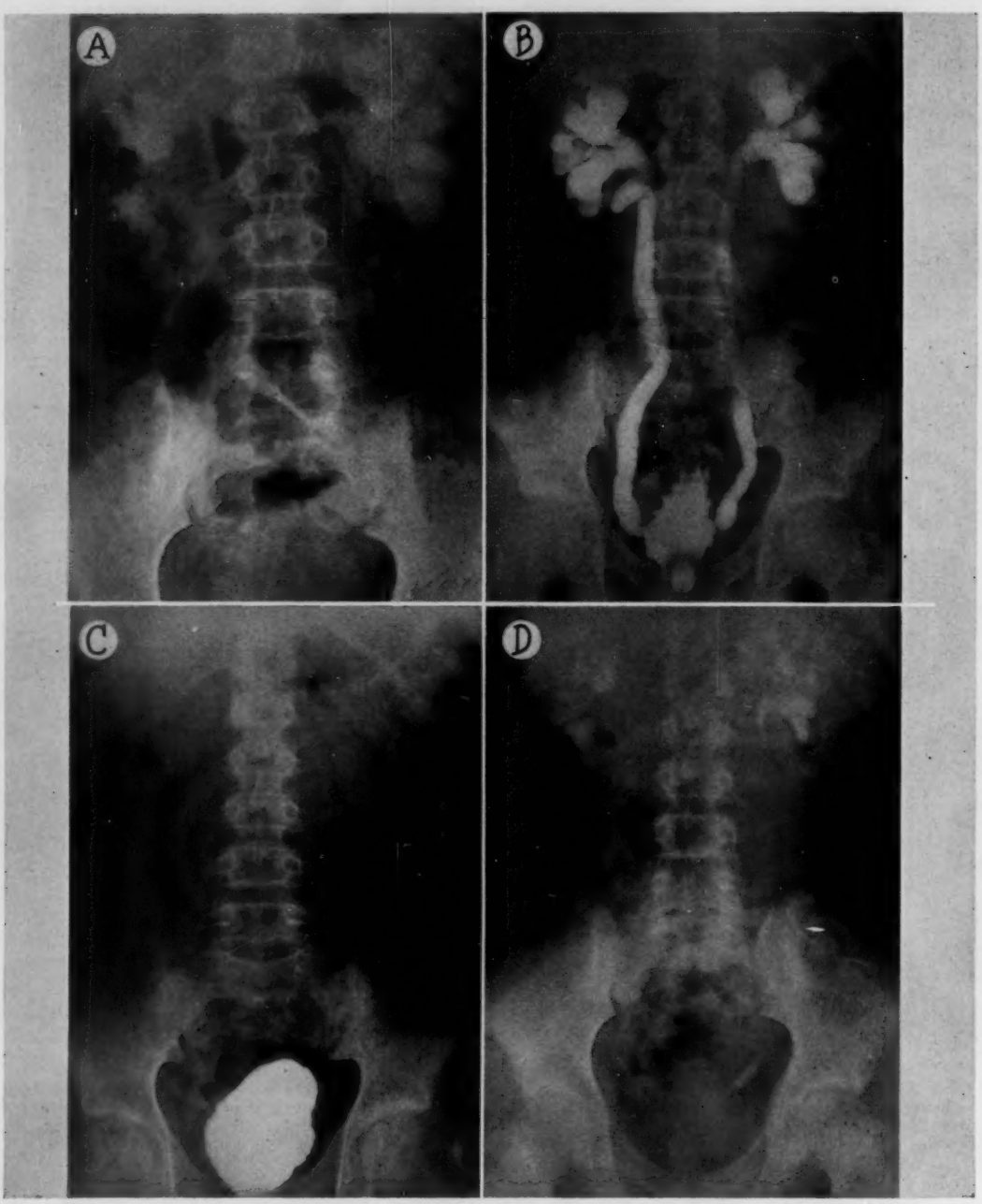

Figure 2

A. Preoperative intravenous pyelograms show delayed and diminished function with bilateral hydronephrosis and hydroureters. B. Preoperative cystogram exhibits immediate bilateral reflux with hydroureters and hydronephrosis. Bladder trabeculation present. C. Postoperative cystogram. Reflux has been corrected. D. Postoperative intravenous pyelograms show marked improvement of function and decrease of hydronephrosis and hydroureters.

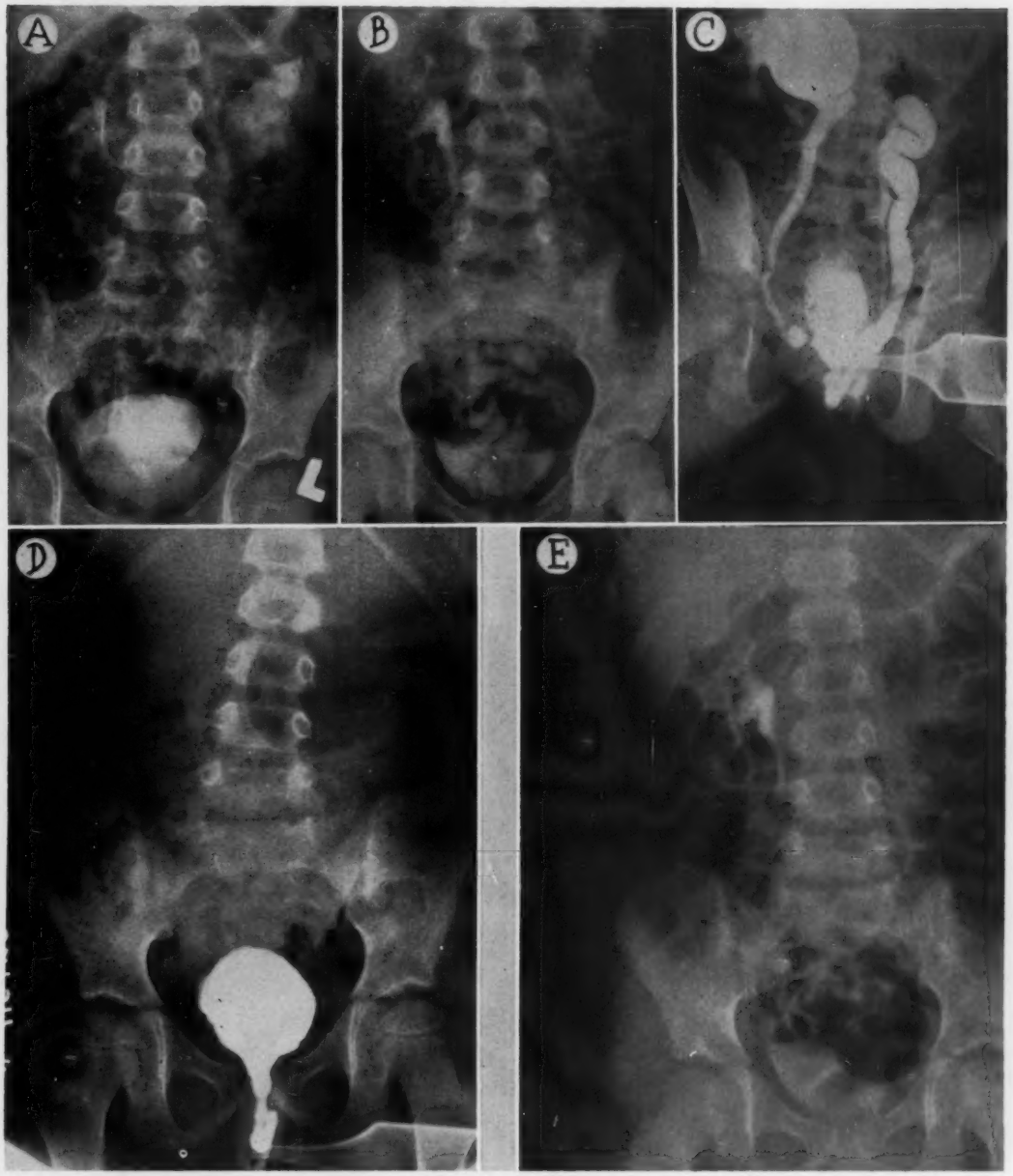

Figure 3

A. Intravenous pyelogram made prior to left nephrectomy shows a double kidney on the left with hydronephrosis of the inferior portion. B. Intravenous pyelogram prior to reimplantation of the right ureter shows a normal pattern with good function. The left kidney has been removed. C. Preoperative voiding cystourethrogram demonstrated the extreme dilation of renal pelvis produced with voiding pressures in the presence of reflux. (The syringe is being used to deflect the voided stream. D. Postoperative voiding cystogram. Reflux on the right has been corrected. The ureters on the left were removed. (Note improvement in bladder outlet.) E. Post-reimplantation intravenous pyelogram. Note absence of dilation of either calyces or ureter.

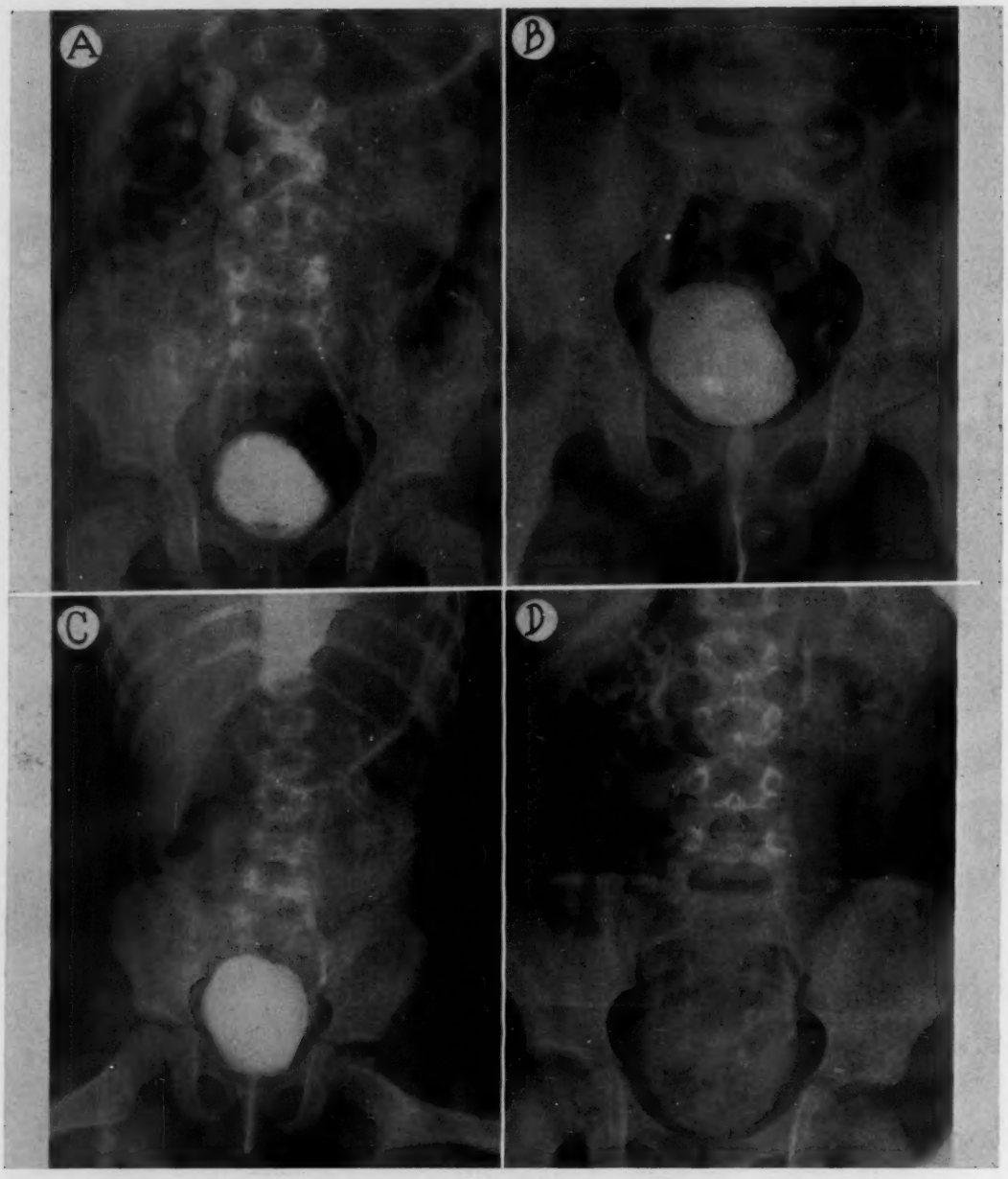

Figure 4

A. Preoperative cystogram demonstrating reflux on the right. B. Preoperative voiding cystourethrogram demonstrated reflux up both ureters. That on the left was missed preoperatively. C. Postoperative voiding cystourethrogram demonstrated reflux still present on the left side, which had not been operated on. Reflux was corrected on the right. D. Postoperative intravenous pyelograms show essentially normal excretion and collecting system.

the severe flank pain produced by free reflux and filling of the bladder.

Preoperative diagnosis was bilateral vesicoureteral reflux. Some neurogenic disturbance of the bladder was strongly suspected as well.

Treatment consisted of bilateral reimplantation of the ureters by a submucosal tunnel. This was successful in correcting the vesicoureteral reflux (fig. 2c). There was marked improvement of the pre-existing hydronephrosis and hydroureters by excretory urography (fig. 2d). During a year's observation the urine has shown from 6 to 8 white blood cells. He has on occasions shown some bacilli. However, he has had no further recurrences of fever and chills, and the flank pain has been eliminated.

Case 3

A 6 year old white child gave a history of recurrent fever and chills over a period of two years. One year prior to admission he had several episodes of stomach "upsets," with cramps and difficulty in voiding. Studies at another hospital revealed an infected urine and a left hydronephrosis. A left nephrectomy was performed. His symptoms persisted, and he was referred to this hospital for further evaluation and treatment.

On physical examination his temperature was 99 F., pulse 92, respirations 20, and blood pressure 120 systolic, 60 diastolic. He was a normally developed child. There was a well healed scar on the left flank.

Laboratory studies revealed a hemoglobin of 12.8 Gm. and a white blood count of 10,000. Urinalysis showed 10 to 15 white blood cells per high powered field. Urine cultures grew *E. coli*. Nonprotein nitrogen was 40 mg. per 100 cc.

Intravenous pyelograms (fig. 3a) showed a left hydronephrotic double kidney prior to nephrectomy. Intravenous pyelograms at this hospital showed a normal appearing right kidney with good function (fig. 3b). Voiding cystourethrograms (fig. 3c) demonstrated immediate reflux to the right kidney, with marked distention of the renal pelvis and reduplication of the ureters on the left side.

Cystoscopy revealed trabeculation of the bladder, early cellule formation, and a moderate contracture of the vesical outlet with a small median bar.

The preoperative diagnosis was contracture of the vesical neck with median bar formation, bilateral reflux, and reduplication of the left ureters.

The operative treatment consisted of excision of the double ureters on the left, reimplantation of the right ureter through a submucosal tunnel, and a Bradford-Young repair of the vesical outlet. This succeeded in correcting the vesicoureteral reflux on the right side (fig. 3d). Postoperative intravenous pyelograms showed good function in the remaining kidney and a normal excretory pyelogram (fig. 3e). The child's urine has remained negative. Urine cultures have been sterile, and he has remained completely asymptomatic. He has been observed over a period of six months.

Case 4

A 4 year old white child was admitted with a history of recurrent abdominal pains, frequency of urination, intermittent fever, and malaise of a year's duration. She had been treated intermittently for cystitis and pyelonephritis with chemotherapy and antibiotics. She had been examined on previous occasions for residual urine, and was found to carry approximately 10 cc. She was admitted with a three-day history of the foregoing symptoms.

On physical examination her temperature was 104.5 F., pulse 132, respirations 28, blood pressure 112 systolic, 68 diastolic. She was an acutely ill, dehydrated child, with diffuse lower abdominal tenderness.

Laboratory studies showed a hemoglobin of 10 Gm. and a white blood count of 10,000. Urinalysis showed 35 to 40 white blood cells per high powered field and albumin of 1 plus. Urine cultures grew coliform bacilli. Nonprotein nitrogen was 27 mg. per 100 cc. Intravenous pyelograms showed a normal upper urinary tract. Cystograms (fig. 4a) showed reflux to the right kidney. A voiding cystourethrogram (fig. 4b) again demonstrated reflux to the right, and on careful inspection reflux was visualized in the left lower ureter. This finding was missed preoperatively.

Cystometric studies revealed normal bladder function.

Preoperative diagnosis was ureterovesical reflux, right. Treatment consisted of reimplantation of the right ureter by a submucosal tunnel. This succeeded in correcting the reflux on the right, but reflux persisted on the left side (fig. 4c). Postoperative intravenous pyelograms (fig. 4d) demonstrated a normal upper urinary tract. The child has remained completely asymptomatic. Her urine has remained negative without medication.

Summary

Vesicoureteral reflux should always be considered abnormal, and the child should be followed closely for evidence of progressive damage to the upper urinary tract. Its presence should be suspected in any child with persistent or recurrent urologic difficulties. The diagnosis is established by cystography, either delayed or voiding films. Conservative measures directed at eliminating the cause or contributing factors should be tried first. If these fail, reimplantation of the ureters becomes a necessity to prevent total renal injury or loss. Any condition which can ultimately produce total renal destruction by progressively increasing back pressure or from repeated infections must be viewed with grave significance and prognosis.

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A Practical Approach to the Diagnosis of Hand Injuries

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WINSTON-SALEM

Injuries of the hand are common in the practice of all physicians who are called upon to treat traumatic accidents. Over a recent three-month period, 1,069 cases of traumatic injury were seen in the Emergency Room of the North Carolina Baptist Hospital in Winston-Salem. Two hundred forty-eight, or 23 per cent, were injuries involving the hand, wrist, or fingers.

Furthermore, it seems safe to say that a relatively greater number of hand injuries will be seen in the years to come. The present trend toward industrialization and the increased use of gadgets in the home is producing a dangerous environment for careless fingers.

While the majority of hand injuries may be considered minor, a significant number involve structures vital to function. Severe, and in some cases permanent, disability may result. Unfortunately, minor and major injuries may have the same external appearance. A small laceration of a finger that proves to be superficial to nerves and tendons may produce only minor inconvenience at one's job for a few days. If the laceration extends a few millimeters deeper to involve tendon or nerve, however, the resultant disability may make necessary a change of occupation, unless it is accurately diagnosed and properly treated.

As one gains experience in the management of hand injuries, it becomes apparent that in many cases much of the disability is due to failure of the initial examiner to recognize the severity of the damage. That these injuries may be overlooked is hardly surprising. Although the medical school curriculum devotes considerable time to the physical diagnosis of other parts of the body, it largely ignores the hand. The situation is only slightly better at the postgraduate level. Surgery of the hand has made great strides in the last 20 years. The treatment of injuries is often brilliantly successfully and excellent texts on the subject are available. Oddly enough, however, the evaluation of hand injuries has received little attention. The work that has been done usually considers some isolated aspect of the problem, and the discussion is often highly technical and of little use to the occasional hand surgeon.

Perhaps because of a limited knowledge of the subject, many physicians consider problems of the hand both complicated and obscure. At first glance this does seem to be the fact. A great many structures are confined within a small area. There are 34 muscles that connect directly to the hand. In the hand and wrist there are 32 bones, two major nerves and the terminal branches of a third, and two major arteries.

Any injury of the region may involve many structures, and a complete analysis of the damage would require a detailed knowledge of the anatomy of the hand and wrist. However, *all structures of the hand are not essential to function.* The examiner need not have the anatomist's knowledge to perform an adequate examination if he understands the role of a few vital structures in the hand, and checks to be certain of their integrity.

In this presentation we will consider the essential structures in the hand and, further, outline a simplified approach to their examination.

Essential Components of Hand Function

Whether engaged in grasping a pencil, weaving a rug, or groping for an object in the dark, the hand owes its usefulness to

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Fig. 1. An example of delayed gangrene is seen in this case. The deep laceration of the palm was produced by a sudden traction on a cable that the patient was holding. All digital vessels to the fingers were severed. Immediately after the accident color of the fingers was slightly dusky, but otherwise good.

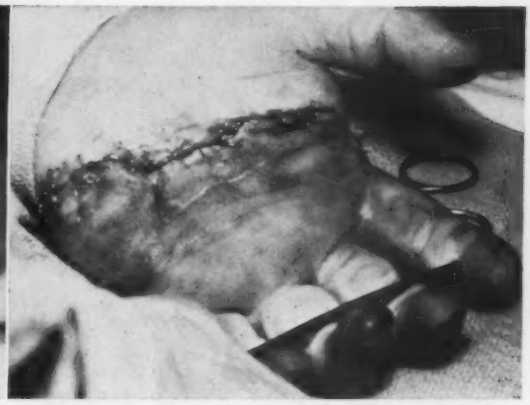

Fig. 2. Over a period of 36 hours death of tissue became apparent. After five days it was necessary to amputate all fingers except the index. At a later date the painful index was amputated through the proximal interphalangeal joint.

three basic attributes which we will label the Big Three of Hand Function. They are circulation, sensation, and motion.

Absence of circulation results in death of tissue. Without sensation the hand is practically useless. Grasp or pinch is impossible without motion. Each of these attributes will be considered in greater detail.

Circulation

The hand is one of the most vascular organs in the body. It is supplied by two major arteries; the radial and the ulnar. These anastomose extensively in the area proximal to the origin of the digital arteries. Wounds of the wrist and proximal half of the palm, if only one of the major arteries is involved, will not produce circulatory insufficiency.

Wounds of the distal half of the palm and of the volar surface of the fingers, however, may involve both digital vessels in a particular finger and result in gangrene. In such cases one should always suspect impending circulatory embarrassment until a healthy circulation can be clearly demonstrated. A finger may appear fairly healthy for hours after both digital arteries have been severed. When edema or constricting dressings appear, gangrene develops (figs. 1 and 2).

The circulation of the digits immediately distal to the wound should be checked in all cases. This is easily done by compressing the pulp of the finger. The fingertip is observed for rapid return of color on removal of the pressure. The suspected finger should be contrasted with a normal one. Slowness of return of color or paleness of the finger indicates arterial insufficiency. A deep dusky color suggests venous congestion. In the Negro the nail bed may be more informative than the finger tip, although one must be constantly on guard to avoid considering a vivid nail polish as indicating a good circulation.

Sensation

In its importance to the hand, sensation is second only to the circulation. The hand without sensation has only cosmetic value. The finger without sensation may even prove dangerous to the individual who uses his hands actively at his job.

The consequences of sensory loss are so severe that great pains should be taken to avoid overlooking any nerve interruption. Nerve suture in the hand gives a high percentage of good results, particularly when performed early.

Many writers have presented the diagnosis of nerve injury in an unnecessarily complex fashion. In reality, recognition of the average case is easy if the examiner is armed with a very few facts and takes a reasonable amount of care.

The two important nerves of the hand, the ulnar and the median, are located along its volar aspect. These divide into terminal branches in the palm to supply sensation to the fingers and thumb. Each finger has two nerves. The radial nerve supplies important muscles proximal to the wrist. It sends sensory branches to the dorsum of the hand,

Fig. A pencil is placed in the thumb web and parallel to the distal palmar crease which is represented by the transverse line. Where median and ulnar nerves cross, the pencil marks their point of division into terminal branches. Nerve injuries distal to the pencil produce sensory loss, but rarely motor loss. Nerve injuries at the level of the pencil and proximal to it produce sensory and motor loss.

but these are relatively unimportant to function and are rarely severed.

Both the ulnar and median nerves divide into their terminal branches in the palm. The point of division of each is easily located by placing a pencil in the thumb web and allowing it to lie across the palm on a line parallel to the distal palmar crease (fig. 3).

Ulnar nerve and pencil intersect at the ulnar side of the base of the palm to mark the division of the main trunk of the ulnar nerve into its digital branches and a motor branch. The motor branch supplies the interosseous muscles, the ulnar, two lumbrical muscles, the hypothenar muscles, and a portion of the thumb musculature.

The median nerve divides into its terminal branches at the point of intersection of its main trunk with the pencil. It supplies sensory digital nerves to the fingers, small twigs to the radial, two lumbrical muscles, and an important motor branch that is responsible for the nerve supply of the most

Fig. 4. If sensation is present in the index and the thumb can abduct, the median nerve is intact. Abduction of the thumb occurs at right angles to the plane of the palm.

important musculature of the thenar eminence.

Although the details of nerve supply in the hand are of great importance to the hand surgeon and anatomist, they are not necessary to the performance of a good examination. The essential components of the examination are easily remembered.

Injuries distal to the pencil in the palm will, for all practical purposes, involve sensory nerves only. Although the motor branch of the ulnar nerve lies distal to the pencil, it is so deeply situated that injury is extremely rare. One must remember to check the sensation on either side of any finger that might exhibit loss of sensation.

Injuries along the pencil line or proximal to it may involve the median and ulnar nerves and produce both sensory and motor paralysis. The state of both nerves must be checked in each case. The examination is simple and rapidly performed.

If sensation is present in the tip of the index finger and the thumb can abduct, the median nerve is intact. The tip of the index finger will always be anesthetic if the median nerve is severed. It is called the autonomous zone of the nerve. A double exposure (fig. 4) has been made to demonstrate abduction of the thumb. There is a rather widespread belief that the opponens should be checked. Actually, this muscle is deeply situated and cannot be isolated clinically. On the other hand, the short abductor muscle is superficial, can be easily palpated, and is supplied by the median nerve. Abduction is a motion carried out at right angles to

Fig. 5. In injury to the ulnar nerve the tip of the little finger will be anesthetic and the index finger will not be able to wag from side to side.

the plane of the palm and requires a functioning short abductor muscle.

If sensation is present in the tip of the little finger and the index finger can "wag," the ulnar nerve is intact (fig. 5). The little fingertip is the autonomous zone of the ulnar nerve and will always exhibit anesthesia if the ulnar nerve is completely severed. Wagging of the index finger is impossible without active contraction of the first dorsal interosseous muscle, which is supplied by the ulnar nerve.

In evaluating the injured hand for possible damage to the ulnar or median nerves, the examiner should not overlook abnormalities in the little and index fingers.

Motion

The third basic component of hand function is motion. Full motion in the hand depends upon the integrity of several structures. These include the median and ulnar nerves, the skeleton, and the muscle and tendon apparatus.

Evaluation of the ulnar and median nerves has already been discussed.

The only sure way to determine the state of the skeleton is to x-ray the hand. Fractures of the metacarpal bones and fingers are frequently obvious. If the fracture is undisplaced or is associated with extensive injury of soft tissue in the hand, however, it may easily be overlooked. Not infrequently the radiograph will demonstrate unsuspected fractures or, equally important, foreign bodies in the wound. Roentgenograms should be considered routine in all but the most benign hand injuries.

Whereas the skeleton may be simply examined with x-ray, evaluation of the muscle and tendon apparatus is slightly more complicated.

Injuries of the muscles of the hand occasionally occur. Frequently such injuries are located over the thenar or hypothenar eminences, and the diagnosis is usually apparent on a simple inspection of the wound. The tendon system is much more commonly injured, and may be involved anywhere in the hand or fingers.

If the wound is located on the volar aspect of the hand or fingers, the examiner must be certain that the flexor apparatus of the fingers and thumb is functioning. Flexion of the fingers is the result of contracting intrinsic muscles, an intact sublimis tendon, and an intact profundus tendon. In practice, however, an isolated injury of the intrinsic muscles is very rare indeed. Sublimis tendons are frequently severed, and, because of their intimate relationship with profundus tendons, nearly always in conjunction with the latter. In the event of an isolated sublimis severance, repair is not indicated. Function of the sublimis tendons in the finger is not essential, and suture attempts might interfere with the profundus mechanism. If the distal phalanx can be forcibly flexed, the flexor mechanism of the finger or thumb may be considered intact. If flexion of the distal phalanx is weak or painful, severance of the profundus has probably been incomplete. Such lesions should be splinted during the healing period to prevent complete separation of the tendon ends.

Wounds of the dorsum of the wrist, hand, or fingers frequently involve the subcutaneously located extensor tendons. This is particularly true when the wound is over the dorsal surface of the interphalangeal joints, where the skin is both thin and under a considerable amount of normal tension.

Although extension of the wrist and fingers is the result of the complicated interrelationship of several mechanisms, the ex-

Table 1

Examination of the Hand in Five Steps

1. Check the wound
   Volar wounds produce nerve and circulatory damage.
2. Check the circulation
3. Check sensation in the fingers
   If the wound is in the midpalm or proximal, check for abduction of the thumb and wag of the index finger.
4. Check tendon function
   In volar wounds, test flexion of the distal phalanges.
   In dorsal wounds, test extension of the next two joints.
5. X-ray the hand

aminer need only check extension of the next two joints located distal to the wound in order to be certain of the integrity of the tendon mechanism. A wound of the dorsum of the wrist, for example, may involve the extensor tendons of wrist and fingers. The patient would then be unable to extend the wrist joint and the metacarpophalangeal joints of the fingers.

Our review of the basic anatomy of the hand can be further condensed. The state of the essential structures following any injury of the hand can be adequately evaluated by following a simple five-step examination (table 1). These steps include an investigation of the wound; the circulation; sensation; where indicated, wagging of the index finger and abduction of the thumb; tendon function; and the skeleton. The examiner can easily modify the examination to fit the individual case. For example, it is hardly necessary to examine all five fingers if only one is involved in the wound. If the wound is a large one and immediate surgical attention is anticipated, it is far better to examine the wound under the sterile conditions of the operating room and with the benefit of good anesthesia. No patient with a hand injury, however, should be taken to the operating room before circulation, sensation, skeleton, and tendon function have been checked, if it is possible to do so.

Mistakes to be Avoided

Certain mistakes are common and should be avoided in the examination of the injured hand. An adequate examination can be made *only* with the intelligent cooperation of the patient. The drunk patient is not to be relied upon for a sensory examination, although the persistent examiner may be able to obtain thumb abduction and index finger motility to a degree sufficient to establish the presence of intact ulnar and median nerves. Hand injuries are not infrequently seen in patients with head injuries. In such cases, both examination and definitive treatment should await adequate clearing of the head injury. In difficult or unconscious patients, the physician must not discharge the patient from medical observation until any hand injury that may be present has been properly evaluated.

Children may present difficult problems to the most experienced examiner. A quiet room and a few minutes taken to obtain the cooperation of the young patient may be of great aid. Much can be learned regarding the tendon function of a hand or finger by observing its response to the proffered lollipop. It is best to reserve the sensory part of the examination for the last, as the response to a painful pin-prick may be the only way to check the sensory status of a finger. In a few cases the final evaluation of a hand injury in a child must depend upon the operative exploration of the wound by someone who is thoroughly acquainted with the details of anatomy of the region. In any case, if the results of one examination are inconclusive, the examiner must repeat his study until he can be certain of the status of the essential structures.

Above all, the injured hand must not be approached as a minor problem. The possibilities of permanent disability often lie hidden to the careless eye. The economic and social catastrophe produced by the severe injury may be greatly lessened by prompt recognition and treatment.

Summary

Hand injuries occur frequently. Disability is often aggravated and prolonged by failure of the examining physician to recognize damage to important structures.

Five steps to a thorough hand examination are outlined, and several pitfalls to be avoided by the examiner are discussed.

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Term Delivery Associated With an Abdominal Lithopedion

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BURLINGTON

On rare occasions a lithopedion is discovered during the performance of an abdominal operation, at necropsy, or by roentgenography. It may be retained in the abdominal cavity for a long time without harm to the mother or injury to subsequent pregnancies. A significant number, however, have resulted in distressing sypmtoms and disability serious enough to warrant surgical removal as soon as the diagnosis of lithopedion has been established[1].

Several conditions are necessary for the formation of an abdominal lithopedion. They have been listed by Oden and Lee[2] as follows:

1. The pregnancy must be extrauterine.
2. The fetus must survive in the abdomen for more than three months; otherwise, it is absorbed.
3. The condition must escape medical notice.
4. The products of conception must remain sterile.
5. The necessary conditions for the deposition of calcium must be present—that is, minimal and sluggish circulation.

It might be prudent to add here that Eastman[3], in his revision of William's *Textbook of Obstetrics*, has reported: "Once in many thousand cases, although we have never observed it, the fetus may be retained *in utero* for a long period, until the deposition of lime salts converts it into what is known as a lithopedion. This phenomenon is relatively common in certain lower animals, and is a recognized, but rare, termination of extrauterine pregnancy."

Roberts[4] has reported one uterine pregnancy in which a calcified twin appeared at term along with a 2,381 Gm. living baby. This is the only case of an intrauterine lithopedion formation reported in the recent literature, and it is mentioned here as an exception to the condition listed above as number one.

Kuechenmeister[5], in his monogram published in 1881, noted that calcification is not entirely limited to the fetus, but may involve the membranes, the placenta, or both. On this basis he proposed a classification of three groups:

1. Lithokelyphos (stone sheath or eggshell), in which the membranes alone are calcified and form a hard shell surrounding the fetus. The fetus may undergo slight change only or may be completely skeletonized, but is not involved in the process of calcification.
2. Lithokelyphopedion (stone sheath child) in which both the membranes and the fetus are calcified.
3. True lithopedion (stone child) in which the fetus is infiltrated with calcium salts and calcification of the membranes is negligible.

According to Mozzetti-Monterumici[6], the average length of time that a lithopedion is carried in the abdominal cavity of a patient is from 10 to 20 years; however Lye[7] reported a lithopedion which remained in the patient's abdominal cavity for 60 years.

Usually the history of an abdominal lithopedion includes four cycles, according to Smith and Bolton[8]. They are as follows:

1. A typical early pregnancy is followed by symptoms of abdominal catastrophe. These signs may sometimes be mistaken for a miscarriage. The pregnancy may progress after the symptoms associated with tubal abortion have subsided. In due time abdominal enlargement and fetal movements may be experienced.
2. Symptoms of labor may occur normally, at or near term. Pains usually stop after 24 to 48 hours without delivery. Fetal heart sounds and movements are noticed to have stopped, signifying fetal death.

From Kernodle Clinic and Alamance County Hospital, Burlington.

3. At this stage the fetus assumes a parasitic existence in the maternal abdomen, gradual dehydration occurs, and the fetal tissues become infiltrated with calcium salts.
4. Late symptoms vary considerably, depending on the organs affected by pressure or erosion by the fetus.

Incidence

The incidence of abdominal lithopedion has been quoted by Schumann[9] to be 1.5 to 1.8 per cent of all patients with extrauterine pregnancy, but he believed these percentages were too high. Masson and Simon[10] found that lithopedions occurred in 2 per cent of the Mayo Clinic series of extrauterine pregnancies from 1903 to 1926, inclusive. Masson, Simon and Cave predicted that the incidence of lithopedion would decrease since physicians are becoming more familiar with the diagnosis of extrauterine pregnancy, and surgical removal can be expected to be performed more promptly than it has been in the past. If the products of extrauterine pregnancy are removed promptly, extensive calcific changes will not occur.

Combined intrauterine and extrauterine pregnancy in which the extrauterine gestation develops into a lithopedion must be extremely rare. In our perusal of the literature we were able to find only 2 patients with such a sequence. These were reported by Howard[11] and Mathieu[1].

Bland, Goldstein and Bolton[12] stated that no trace of the placenta is ever found, and concluded that it is absorbed. Oden and Lee[2], however, in their case, reported a calcified mass in the left lower pelvis at the time of operation which apparently was not removed, but was seen and felt, and which was later found on a second x-ray examination of the pelvis. They stated that theirs was the first reported case in which an abdominal lithopedion and the placenta were found.

In the following case, the abdominal lithopedion and placenta were found at the time of pelvic laparotomy following a full-term delivery of a viable female child.

Report of a Case

The patient was first seen in our office on August 18, 1956, saying, "I have a tumor and am pregnant."

She had experienced the usual early symptoms of pregnancy involving nausea and vomiting, mastodynia, increased leukorrhea, and polyuria in the first trimester. The tumor of which she complained was located in the anterior abdominal wall above the umbilicus, was about the size of a lemon, and had been there for several years. She had been told by her local medical doctor that it was a lipoma.

Past obstetric history

The patient had had six previous pregnancies. The first four—occurring in 1946, 1947, 1949, and 1950, respectively—had been essentially normal, with the exception of excessive weight gain throughout the entire period in each instance. Each pregnancy had terminated in the delivery of a living child at home, under the care of a local physician.

In 1952 she gave birth to a living female child at Alamance County Hospital, with a local medical doctor in attendance. According to the hospital chart, she had gained a total of 40 pounds during this pregnancy. The blood pressure had averaged 160 systolic, 90 diastolic. The highest blood pressure recorded while she was in the hospital was 150 systolic, 90 diastolic. A urinalysis was negative, and a white blood count was within normal limits. No other laboratory work was done.

In 1954 she had a complete abortion at three months' gestation, for which she was treated at home by a local physician. Hypertension, which he had noted the year before, was also present at this time.

Past medical history

She had had measles and mumps, without sequelae. Her usual weight during the preceding year had varied between 185 and 200 pounds. No other medical illness was reported, and she had had no operations, blood transfusions, serious injuries, fractures, or dislocations.

Review of systems was essentially negative except for hypertension during the past four years.

The menarche had occurred at 16 years of age. Thereafter menses occurred every 28 days, lasting four to five days, with moderate flow and no pain. No intermenstrual vaginal bleeding had ever been noted. The patient stated emphatically that she had never missed a period except during the aforementioned pregnancies.

The family history was essentially negative except for hypertension in both parents.

Physical examination

The patient was a well developed, well nourished, obese Negro woman, lying quietly on the examining table in no apparent distress. Her weight was 186¾ pounds; height, 62 inches. The blood pressure was 160 systolic, 90 diastolic.

The conjunctivae, nail beds, and mucous membranes of the mouth were pale. The heart was enlarged slightly to the left.

A soft, non-tender mass about 3 to 4 cm. in

diameter was noted on the anterior abdominal wall approximately 2 to 3 cm. above the umbilicus.

Pelvic examination revealed normal external genitalia, marital introitus, negative Bartholin's and Skeen's glands, and fair bladder and perineal supports. The cervix was enlarged to twice the normal size, was blue and soft, and showed no erosion or eversion. The uterus was anterior, freely movable, soft, and enlarged to a size consistent with 10 to 12 weeks' gestation. The adnexae and cul de sac were normal.

Laboratory findings

The hemoglobin was 50 per cent, red blood cell count 3,100,000, white blood cell count 7,500, with a normal differential. A catheterized specimen of urine was negative. A Wassermann test was also negative. Blood was classified as type A, Rh negative.

The clinical impression at this time was

1. Intrauterine pregnancy, approximately 10 to 12 weeks' duration
2. Umbilical hernia
3. Marked secondary anemia
4. Essential hypertension
5. Rh negativity.

Prenatal course

The patient was seen on 14 different occasions during this period. Her total weight gain was 3¼ pounds. The blood pressure varied from 170 systolic, 100 diastolic to 152 systolic, 90 diastolic. Urinalyses were negative except for a trace of albumin on four occasions. The hemoglobin ranged between 70 and 80 per cent, and was within normal limits for the first time on September 29, approximately five weeks after her first visit to the clinic. Three examinations revealed the blood to be type A, Rh negative, with no evidence of immunization. Serum was negative for atypical antibodies.

Treatment consisted of a high protein, high carbohydrate, low salt diet. Iron and calcium therapy was instituted on her first visit and continued throughout the prenatal course. The patient had no headaches and no edema during this time.

Hospital course

The patient was admitted to the Alamance County Hospital, Burlington, on February 18, 1957, at full term, and in early labor. After three hours she was delivered spontaneously of a full-term living female child, with the aid of small doses of Demerol, hyoscine, and Trilene.

Laboratory findings: The hemoglobin was 87 per cent, red blood cell count 4,400,000, white blood cell count 10,000, with a normal differential. A urinalysis was negative. Uric acid was 3.3 mg. per 100 cc., the nonprotein nitrogen 33 mg. per 100 cc. Phenolsulfonphthalein at 15 minutes was 37 per cent; at 30 minutes, 17 per cent; at one hour, 16.5 per cent—total, 70.5 per cent. An electrocardiogram was normal. Posteroanterior films of the chest were reported as clear.

The blood pressure ranged from 170 systolic, 90 diastolic during the hospital stay.

On the basis of multiparity, essential hypertension, and economic status, sterilization was considered to be indicated. In this particular instance, tubal ligation was elected as the procedure of choice, and on February 22 a pelvic laparotomy was performed.

At operation the left tube and ovary appeared to be in a normal postpartum state, as was the uterus. The right tube was elongated, and protruding from its fimbriated end was a small tubular structure approximately 1 cm. in diameter. This ended in a wide pouch-like expansion, dark brown in color, measuring approximately 3 to 4 cm. in diameter. This structure was not attached to anything else in the pelvis. The right ovary appeared to be normal. On exploration of the abdomen a hard firm mass was felt in the right gutter at about the level of the liver edge. This was gently brought into the operative field and at once was seen to be a lithopedion which was attached by many thin, film-like adhesions to the ascending and transverse colon, and the omentum. These adhesions were severed and the lithopedion was removed. It was then obvious that the structure coming from the right tube was the remnant of the placenta. This structure was resected, as was the left tube, and the appendix was removed. The soft mass which had been noted from the time of the patient's first clinic visit was lying immediately anterior to the umbilicus. It was seen to be an umbilical hernia, as had been suspected, and was filled with a large amount of omental tissue. The omentum was removed from the umbilical hernia, the hernia was repaired, and the abdomen was closed in layers.

*Pathology**

Gross description: The specimen was a right tubular structure measuring 8 cm. in length. Beginning 2 cm. from its distal fimbriated end was a wide pouch-like expansion of the tube, forming a structure measuring 3 to 5 cm. in diameter. Section showed the tube wall to be thin and dilated in this area, and filled with degenerating friable yellowish-brown tissue. Grossly, this material resembles necrotic placental tissue. A probe was readily passed through the fimbriated end of the tube into this dilated portion and from here could be passed into the proximal uterine end of the tube. A degenerating calcified fetus measuring 13 cm. from crown to rump was discovered. The general form of the fetus was well preserved, but degenerative changes had destroyed many of the finer details of its external form. Broken adhesions of fibro-fatty tissue covered a portion of the surface. There was a general lack of pigmentation of the entire structure. The estimated age of the fetus was approximately five months.

Microscopic description: Cross-section of the con-

*By George R. Kerr, Burlington.

tents of the right tube showed completely necrotic placental tissue in which only the outline of the chorionic villi were discernible. Many small focal deposits of calcium were present in this tissue.

Diagnosis:

1. Calcified fetus (removed from abdominal cavity)
2. Right fallopian tube containing necrotic placental tissue
3. Chronic periappendicitis
4. Section of left tube.

The patient had an uneventful postoperative course and was discharged from the hospital on February 28, 1957.

Follow-up

At six-weeks the hemoglobin was 86 per cent, the white blood cell count normal, weight 168½ pounds, blood pressure 170 systolic, 90 diastolic. Examination of urine revealed a trace of sugar and a slight trace of albumin, but was otherwise essentially negative. The abdominal incision was well healed, showing no evidence of a hernial defect.

This patient was next seen on March 29, 1958. She stated that her menses had been regular and normal for the preceeding year, her last menstrual period having been March 8-13, 1958. She had no complaints.

Her weight was 182 pounds, blood pressure 158 systolic, 98 diastolic, hemoglobin 73 per cent, and white blood cell count 6,800, with a normal differential. A urinalysis was entirely negative.

The abdominal wound was well healed and showed no evidence of umbilical hernia. The cervix was posterior, clean, closed, and showed no erosion or eversion. The uterus was anterior, normal in size and shape, and freely movable. Adnexae and cul de sac were negative.

Summary

A patient with a full-term pregnancy asociated with an abdominal lithopedion has been presented. In as far as we have been able to ascertain, this pregnancy originally was associated with a co-existing intrauterine pregnancy, but as to which of those recorded in the history we were not able to decide from the patient's account. In addition, at the time the lithopedion was removed from the abdominal cavity the placenta was also identified and proved by pathologic examination.

We would like to state that, although extremely few such cases have been reported, we believe that a considerable number have been seen and treated without being recorded in the literature.

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Concealed Hemorrhage With Hemorrhagic Diathesis

Report of a Case

TRENT BUSBY, M.D.

SALISBURY

Early in the morning of August 2, 1956, I received an urgent call from the delivery room. On arrival I found a 29 year old Negro woman, obviously at term, in profound shock. Because of her condition, it was difficult to elicit an adequate history. She had previously had 10 children; no abortions. Her last menstrual period and expected date of confinement were unknown. She had had no prenatal care except for an occasional visit to the county clinic, where she was told that she had low blood pressure. Her pregnancy had apparently progressed uneventfully until 5:00 A.M. on the day of admission, when she became aware of a peculiar sensation in the head and general malaise. There was no pain and no vaginal bleeding.

Physical Examination

Physical examination revealed a well developed, well nourished Negro woman apparently at full term. The mucous membranes were quite pale; the tongue was white. The extremities were cold and clammy. Examination of the head revealed normal extraocular movements. The pupils were symmetrical and of average size. Examination of the heart revealed no murmurs. The pulse rate was 100, blood pressure 50 systolic, 0 diastolic. The lungs were clear. Examination of the abdomen revealed a soft, term-sized uterus. There was no tenderness. The fetal heart could not be heard. Pelvic examination revealed a firm, fixed cervix, which would barely admit one finger. The fetal head was presenting in the pelvis at a level of 2 cm. above the ischial spines. The membranes were widely stripped. No blood was obtained on the examining finger.

Hospital Course

Because there was no obvious obstetric cause for the shock, it was thought that the patient might be suffering a heart attack or cerebral hemorrhage. A medical consultation was obtained while laboratory studies were being performed. The medical consultant found no apparent medical cause for shock. About 15 minutes after the vaginal examination had been performed, dark blood began to pour copiously from the uterus. Thus it became obvious that the patient had a concealed hemorrhage from abruptio placentae. The hemoglobin was reported at 5.4 Gm. Examination of catheterized urine revealed a trace of albumin and no sugar; microscopic examination was negative.

Because of the long, thick cervix it was believed that vaginal delivery could not be anticipated within a reasonable length of time and that in the best interest of the patient a cesarean section should be performed as soon as an adequate supply of blood was available. Transfusions were begun as soon as possible, and when the patient's condition had sufficiently improved, the blood pressure having risen to 90 systolic, 40 diastolic, pulse rate 120, a classical cesarean section was carried out under gas-oxygen-ether anesthesia. A dead 6 pound, 6 ounce male infant was delivered along with about 1,500 cc. of dark clotted blood. The placenta was free in the uterine cavity and completely detached. The surface of the uterus showed considerable interstitial hemorrhage characteristic of a Couvellaire uterus. In view of the patient's parity and the Couvellaire changes in the uterus, hysterectomy was considered advisable for the following reasons: (1) It would be quicker than sewing up the uterine incision; (2) the hemorrhagic state of the uterus would be a source of continuous postpartum bleeding; (3) the uterus would be a source of thromboplastin which would tend to reduce the patient's circulating fibrinogen and cause further hemorrhagic difficulties. Accordingly, subtotal hysterectomy was carried out at about 10:00 A.M. on August 2. Double ligatures were placed on all major vessels. At the end of the operation the abdomen was dry and there was no bleeding (operating time, 23 minutes). The patient received 3 pints of blood during the operation and blood was continued postoperatively, but the patient remained in a state of shock.

At 12:00 noon the blood pressure was 40 systolic, 30 diastolic. The patient was quite

restless and suffering from air-hunger. She was given oxygen, and a cut-down was carried out on the right ankle. Blood was administered under pressure. The blood pressure promptly responded and came to a level of 100 to 110 systolic. During the course of the morning and the early afternoon she was given 7 pints of blood. At 2:30 P.M., despite the continued administration of blood, her pressure fell to 60 systolic. Her pulse was rapid; rate, 120.

Because of the persistent shock, it was believed that the patient must be having intraperitoneal bleeding. Percussion of the abdomen revealed dullness in both flanks. She was taken to the operating room and, under gas-oxygen-ether anesthesia, the previous incision was reopened. There were about 2 liters of dark blood, some of which was partially clotted in the peritoneal cavity. There was no specific bleeding point, but rather a generalized ooze from all peritoneal surfaces in the pelvis. We then examined the spleen and liver and found no bleeding coming from the upper part of the abdomen. It seemed that all the bleeding was coming from the pelvis.

There was a small hematoma, about 3 cm. in diameter, in the left broad ligament. This ligament was opened and no bleeding point could be found, although there was considerable ooze from all surfaces. The left tube and ovary were then removed in the hope of restoring some degree of hemostasis by ligating the infundibulopelvic ligament. The area continued to ooze and several mattress sutures were applied in an attempt to effect hemostasis, but every needle puncture resulted in more oozing. We seemed to be getting nowhere.

The bladder flap was removed from the cervix, and one cervical suture was removed. A cigarette drain was placed in the vagina, through the cervix, and the end of the drain was placed in the left broad ligament. The left broad ligament was then closed and the bladder flap resutured over the cervix. So much blood continued to ooze into the pelvis, however, that our attempts to arrest it seemed hopeless. A large Boston roll gauze was then packed into the pelvis with the end protruding suprapubically. The abdomen was closed with interrupted through-and-through sutures of heavy cotton.

The patient's condition at the end of the operation was better than at the beginning: the systolic pressure was now 100 mm., the pulse 110. She received three pints of blood during and immediately following this second operation. A large drainage dressing was applied to the abdomen. Following the operation she was given 1 Gm. of fibrinogen intravenously.

At 7:00 P.M. the patient was given 1 additional Gram of fibrinogen in glucose and saline. She was having slight urinary output at this time. The next day, at 6:30 P.M., the vaginal cigarette drain and Boston roll pack were removed under Trilene anesthesia in the patient's room. There was no significant bleeding thereafter. By this time the patient's output of urine was more than 1,000 cc. There was no evidence of shock, and her general condition seemed good. Throughout the preceding 24 hours the blood pressure had maintained levels exceeding 110 systolic; her temperature had not exceeded 100 F., the pulse rate varied between 116 and 120. During the subsequent postoperative period she received penicillin therapy because of a positive serologic test for syphilis. The sutures were removed on the sixteenth postoperative day, and she was discharged on the next day in good condition.

Following the initial episode the patient had no further hemorrhage. There was no bloody drainage from the vagina or the abdomen. The urinary output remained adequate. She had a moderately febrile course, with temperatures ranging from 100 to 101 F. during most of her hospital course, although repeated examinations showed no specific evidence of localized or generalized infection.

Six weeks *post partum* she was examined and found to be in good condition.

Conclusion

Unfortunately, quantitative fibrinogen determinations were not available in our hospital at the time this case was observed. Although I do not have laboratory data to substantiate the exact nature of the hemorrhagic diathesis, this case would seem to fit into that group where fibrinogenopenia is the underlying cause.

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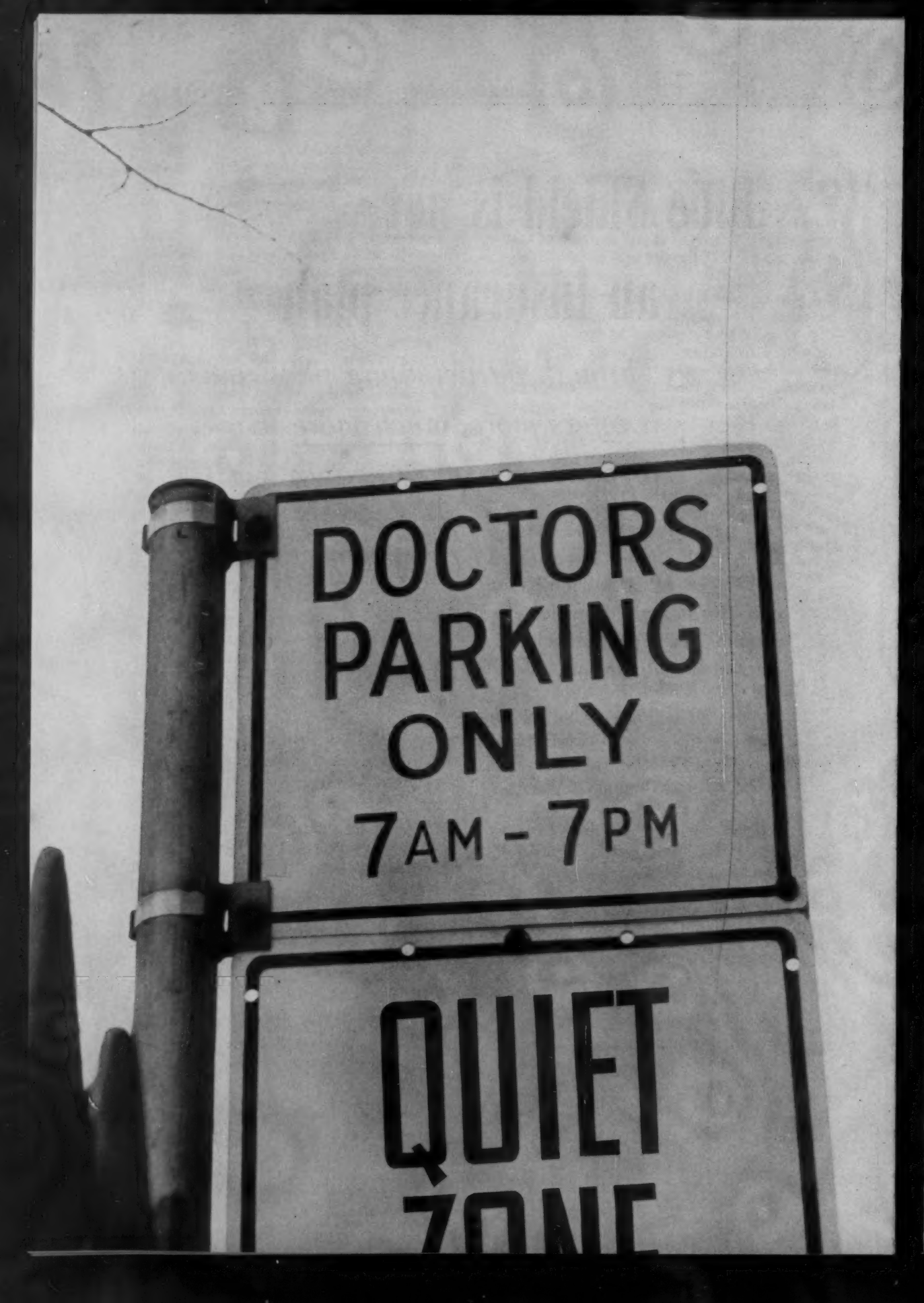
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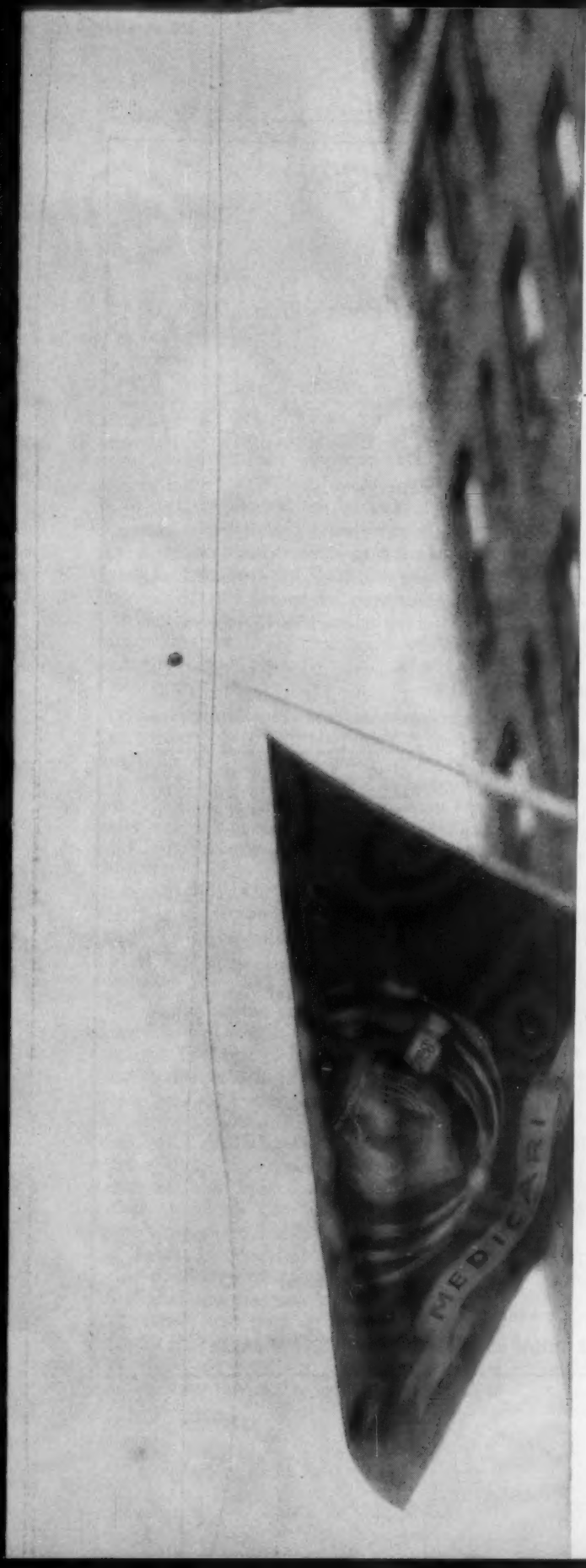

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Subarachnoid Hemorrhage at Cesarean Section

A Case Report

COURTNEY D. EGERTON, M.D.

and

ROBERT J. RUARK, M.D.

RALEIGH

The patient was a 27 year old woman, para i, gravida ii, whose last menstrual period was June 29, 1956, and whose expected date of confinement was March 5, 1957. She gave a history of severe preeclampsia with her first pregnancy, requiring hospitalization for three weeks, in Paris, France. Her blood pressure at that time maintained a constant level of about 200 systolic, 120 diastolic. Delivery was effected by cesarean section at eight months' gestation because of the toxemia, and a living infant was obtained. This had been in 1953, and the blood pressure had been normal since that time.

When the patient was first seen by us on September 26, 1956, her general physical condition was good, the blood pressure was 110 systolic, 70 diastolic, and serologic test for syphilis was negative. She had an essentially normal prenatal course except for a mild hypochromic anemia. She gained only 18 pounds, and at no time was there the slightest suggestion of toxemia. She was admitted to Rex Hospital on March 21, 1957, for an elective repeat cesarean section the next day. The blood pressure on admission was 130 systolic, 90 diastolic.

On March 22 the patient was taken to the operating room and given a spinal anesthetic of Pontacaine 10 mg. by an anesthesiologist. Her blood pressure prior to anesthesia was 138 systolic, 86 diastolic. The old scar was excised and the abdomen entered without incident. While the vesicouterine fold of peritoneum was being dissected off the lower uterine segment, the patient suddenly complained of headache, severe enough to make her cry. The anesthesiologist informed us that there had been a rise in blood pressure up to 150 systolic, 100 diastolic in response to 5 mg. of Vasoxyl which had just been given intravenously. Prior to that the blood pressure dropped to 90 systolic, 60 diastolic. A low transverse incision was made in the uterus, and a living female infant weighing 3,400 Gm. was delivered. Fifty milligrams of Demerol was then given intravenously because of the headache, and at the same instant the patient began having mild convulsive seizures. Our first thought at this time was that she had had a drug reaction either to Pontocaine, Vasoxyl, or Demerol. On this assumption, she was given Sodium Pentothal, and in addition, because convulsions continued, 20 cc. of a 10 per cent solution of magnesium sulfate intravenously. During this time the blood pressure had not been above 160 systolic, 110 diastolic, and had remained around 150/100 most of the time. While the foregoing measures were being taken by the anesthesiologist, we had completed the operation. Blood loss had been minimal, and no transfusion was required. Oxygen had been administered by mask throughout the entire procedure. The patient had ceased twitching and left the operating room apparently in satisfactory condition, with a blood pressure of 130 systolic, 90 diastolic.

While in the recovery room she began having mild convulsions again and was given 16 mg. (¼ grain) of Morphine. She then slept, being free of convulsions and with all vital signs stable. When she had not reacted some six hours later and could not be awakened, we asked for neurosurgical consultation. The consultant, Dr. LeRoy Allen, found her semicomatose, but the neurologic changes were too vague to be diagnostic at that time. His first impression was also of a drug idiosyncrasy, but he considered a mild subarachnoid hemorrhage a possibility.

By the next morning the patient's vital signs were still stable, but she was still comatose and now displayed a typical right-sided hemiplegia, a stiff neck, and bilateral positive Babinski sign. A lumbar puncture yielded bloody cerebrospinal fluid and a pressure of 160 mm. of water. The diag-

nosis of subarachnoid hemorrhage was then apparent.

For the remainder of her hospital course she was primarily a neurosurgical problem. Her clinical course was very stormy, and she remained in a critical condition for weeks. Repeated lumbar punctures and clinical signs suggested that she had at least two more episodes of intracranial hemorrhage. On the sixth postoperative day an emergency tracheotomy was performed. She remained comatose and for several days had mild diencephalic seizures.

A congenital aneurysm was suspected because of her youth, and on April 5, a left cerebral arteriogram was made. This revealed a questionable thrombosis of a branch of the middle cerebral artery, but no aneurysm. In the third week she began to show signs of hydrocephalus, and repeated spinal punctures were necessary. The spinal fluid pressure on one occasion was as high as 370. The pressure gradually decreased, and three weeks after the operation she regained consciousness but remained aphasic and hemiplegic.

A ventriculogram on April 24 revealed a porencephalic cyst, measuring 4 cm. in diameter, in the left frontotemporal area. This finding indicated that there had been intracerebral hemorrhage with liquefaction necrosis of brain substance.

The patient made a gradual recovery in the next few weeks, owing largely to expert attention by Dr. Allen and continuous nursing care. At the time of discharge nine weeks after operation she could swallow, talk with a guttural speech, comprehend fully, and even walk a little. Her recovery at home was remarkable, and after about six months she was able to discard her leg brace. She now has complete use of her right arm, and her speech is only slightly thick. She even passed her driver's license test in February, 1958.

She had been amenorrheic for six months following the hemorrhage, probably on the basis of debilitation. She has been menstruating normally since October, 1957, and when last seen in March of this year was in good general condition. Her blood pressure was 122 systolic, 76 diastolic.

Comment

Retrospective criticism can run rampant in a case like this, but, there perhaps are some lessons to be learned here. Opponents of the repeat cesarean section might point to this case with tongue in cheek. We believe that this criticism is beside the point in this case. Critics of spinal anesthesia might argue that the whole chain of complications might have been averted had local or general anesthesia been used. Others may defend spinal anesthesia as such, but question the agent or dosage used. Some question might be raised concerning the treatment of anesthetic hypotension, especially with intravenous vasopressor drugs. We again point out that the anesthesia was administered by a well trained, competent anesthesiologist, and that the dosages of the various drugs used were within the recommended range. Finally, we admit that we were slow to recognize what was happening, although it is doubtful that the outcome would have been different even with a prompt diagnosis.

Summary

A case of subarachnoid and intracerebral hemorrhage occurring at the time of repeat cesarean section has been reported. It is hoped that this case will serve as a reminder that even a simple elective cesarean section is not without hazard.

The Medical Spectator

Last month some of the repressed conflicts between physicians, metaphysicians, and lawyers were noted and hints about their conversion to more acceptable attributes offered. The previous month Dr. Graham[1] had explored with some perception the problems of dehumanization in industrial society. This month Big Labor, Big Business, and Big Government have been chosen as the proper targets of the Medical Spectator. Should this rate of attrition continue, it will soon become obvious that everyone but physicians will be dehumanized, poorly integrated, dependent, and "other-directed." To anyone but a physician such isolation would suggest paranoid tendencies, but we do retain some control in defining illnesses so that there is no real need for concern.

Because Big Government is so much with the self-employed, who must make obeisance quarterly, it is fitting that father figures in Washington be considered first. And

because many of us have struggled with division commanders and infantry colonels whose favorite hobbies seem to be venereal disease statistics, the military requires scrutiny. It must be recognized that policy and protocol dictate military custom and tradition, and have probably done so since Caesar's legions. This is essential because the military mind must, by my definition, be saturated with guilt, first for killing in wartime and later for conspicuously wasting the taxpayers' money in peacetime. It then becomes necessary to systematize and convert this guilt. Thus our peacetime army rides hell for leather by the clock and issues directives in a most anaplastic manner. The upshot is that boredom becomes a problem of overwhelming intensity, one for which almost any means for temporary solution is welcomed. The magnitude of the problem is reflected by the refusal of high brass to accept chronic alcoholism among enlisted men as a service-connected disability. In one stroke the environment is absolved of guilt; that leaves heredity, which has enough to do without predetermining who will become an alcoholic, where and when.

Big Business today and Big Labor too seem set on pursuing a similar path until one looks a little more closely and appreciates that the leaders of these groups approach power more subtly and therefore a little more respectfully. Both are now up to their ears in thoughts of automation, business with a view of simplifying operations and increasing profits, and labor concerned with keeping its members working and the dues flowing in. One solution has been suggested —the four day week. And this is where medicine enters, because idle people have little to do and a favorite hobby with the unoccupied is worrying about themselves. Symptoms follow in astonishing profusion, and who but the physician can ease and tranquilize?

But what does leisure breed? We really don't know because few if any societies have been able to offer it. One of the real dangers of such prosperity is the fear that somebody will take it away, and if we have enough fearful people, panic will shortly become endemic.

Even so, is our society any more dehumanized than the ones we have followed? A popular pastime among the cognescenti is to pine for the stability of medieval society without realizing that fear of demons was a great cohesive force in that civilization. Our demons are called by different names, of course, but they certainly are no less real when they are corporate or governmental.

Reference

1. Graham, J. B.: Dehumanization—The Real Flaw in Socialized Medicine, North Carolina M. J. 19:217-221 (June) 1958.

* * *

Some Uncivil Thoughts About Civil Defense

One of the legacies of professional soldiering is retired brass, and one of the problems facing this country today seems to be how to keep the brass polished. Protocol gives authority and, as is well known, authority engenders knowledge in its possessors. When a military man retires he carries his authority with him; the market then is glutted by the surplus of unexercised authority. There aren't enough Boy Scout troops about, and adolescent boys aren't noticeably respectful anyway.

Civil defense has offered a wonderful haven for many of these dispossessed, and we as taxpayers must be grateful. Recent plans calling for evacuation of our cities are certainly comforting. We take to our cars and start driving in the directed direction at the first sign of a mushroom cloud, somewhat like the lemmings of Lapland. That we won't have time to outthink an intercontinental ballistic missile is irrelevant and perhaps even irreverent; that our roads are constipated by motorized living rooms at the moment is unimportant, and that we might be leaving relative order in towns and cities for chaos in the country are thoughts to be classified as unpatriotic.

On second thought it may be better to have such valetudinarians in civil defense rather than in positions of importance.

CORRECTION

Attention is called to a correction in the article entitled "Familial Amyotrophic Lateral Sclerosis: Report of Two Cases" by Perry and Netsky (North Carolina M.J.: 19: 229-234, June, 1958). In the second column on page 232, 21 lines from the bottom, "Other aberrations" should read "Mental aberrations." The complete sentence is as follows: "Mental aberrations have generally been considered coincidental or what would be encountered with any severe, disabling disease, but this is another unsettled matter."

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AUGUST, 1958

THE GOVERNOR'S COORDINATING COMMITTEE ON AGING

Mark Twain's comment that everybody talked about the weather but nobody did anything about it implied that, at least, most people were interested in the weather. Until recently only a comparatively few people even talked about old age, and little was done about it. Within the past two decades, however, more and more people are talking about it. Dr. Wilma Donohue said a few years ago that old age was becoming as popular a subject as sex. While this was rather overestimating the public's interest in aging, the is no doubt that a great many people, both medical and non-medical, are genuinely interested in making it possible for our older citizens to feel with Browning that "the best is yet to be."

For the first time in North Carolina history, a special week was set aside to give special consideration "to the health, happiness and welfare of the state's aging citizens." Governor Hodges issued an official statement designating the week of July 13-19 as what might facetiously be called "Be Kind to Old Folks Week."

North Carolina has made an enviable record in its accomplishments in the care of its older citizens. Less than a year after the first National Conference on Aging was held in Washington, D. C., North Carolina had one of the first statewide conferences on aging, in June, 1951. A committee was appointed by the Governor to follow up the conference. This committee completed its study by December, 1952, and filed a report with 10 recommendations.

In September, 1956, Governor Hodges appointed the present 15-member Coordinating Committee on Aging, which has been quite active since its organization. Shortly before the above-mentioned special week, the committee issued its first report. Since all doctors should be interested in the work of the committee, some extracts from it are given below.

The Committee was purposely limited to fifteen members so that it could be a small working group, composed of the heads of State agencies with major responsibilities in the general area of older citizens, together with representatives from the University of North Carolina, Duke University, Bowman Gray School of Medicine, and a representative from industry. The Committee recognized in its first meeting that all areas of significance to a State concerned with its older citizens could not be covered by any one committee and that the help of many specialists would be needed in carrying out the purposes of the Committee.

The State Board of Public Welfare provides secretarial and certain research services. The member agencies carry the responsibility for programs and projects in their own fields and determine the agenda, deciding at each session on the major topics for the following meeting . . .

Accomplishments

What have been the accomplishments to date of this Coordinating Committee, established September 12, 1956?

In the first place, the Committee carefully reviewed the ten recommendations which were made by the earlier committee which was dissolved in December 1952 . . .

In the second place, there has been an analysis of current facts with regard to the older population in the State and an evaluation of trends . . .

In the third place, each of the fifteen members of the Coordinating Committee has reviewed in detail for the Committee the work of his agency or organization in the field of aging. There has been group discussion of each of these programs. A comprehensive brief has been filed on each report for the permanent record of the committee. Also, pertinent agency publications have been placed in the permanent file and distributed to all members of the Committee along with other related materials from both national and foreign sources. At appropriate times both State and national legislative proposals affecting older people have been considered.

Major areas which have been reported upon included, among others, the following:

(1) Special programs for placement of older people in employment.

(2) Plans for expanding adult education programs.

(3) Increased activity in stimulating recreation among older groups, including conferences on recreation for aging.

(4) A wider range of public health programs and services for older people including a new division on chronic illness in the State Board of Health.

(5) More attention to the training of medical students to cope with the needs of older people.

(6) Courses in geriatrics at the North Carolina School of Public Health Nursing.

(7) Increasing the types of services needed and used by older people in libraries throughout the State.

(8) Emphasis by the State mental hospitals upon working relationships with local agencies, especially welfare departments, so that older people can be cared for at home whenever possible.

(9) Strengthening the State retirement system.

(10) Helping to bring information to rural people about services needed by and available for the aged, through the auspices of the Agricultural Extension Service.

(11) A wide range of services through the public welfare program . . .

In the fourth place, a number of specialists have met with the Coordinating Committee to discuss programs not directly represented in the Committee membership . . .

In the fifth place, the Coordinating Committee, through the office of the chairman, serves as a clearing house to handle the innumerable inquiries which come in from interested individuals and from organizations and agencies in this and other states . . .

In the sixth place, the Coordinating Committee within its relatively short period of existence has a number of concrete developments to report as follows:

A clearing house on materials on aging has been established in connection with the State Library. A centralized collection of materials was found almost immediately to be a necessity.

The first survey under the auspices of the Committee has been completed and distributed widely, namely a "Survey of Industrial Retirement Programs in North Carolina." Many requests for copies have been handled.

A pamphlet on pre-retirement counseling, entitled "A New Look at the Mature Worker," has been published under the sponsorship of the Coordinating Committee with the actual preparation and financing being handled by the Employment Security Commission.

Another project nearing completion is a summary of basic legal knowledge, with respect to North Carolina law, with which older people should be familiar.

The Coordinating Committee is developing a program to promote better understanding and cooperation in communities with respect to the broad field of aging with plans underway for approximately 25 community-wide or county-wide one-day meetings to be held in the fall of 1958.

* * *

DIAMOND ANNIVERSARY OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

After a prolonged gestation period of nearly 35 years, the first issue of the *Journal of the American Medical Association* appeared July 14, 1883. Its seventy-fifth birthday was celebrated by a special issue for July 12.

Of the galaxy of 21 contributing authors listed on the cover, only one is a medical man. That one, very fittingly, is Dr. Gunnar Gundersen, president of the American Medical Association. Two other doctors whose names were not listed, but who deserve most of the credit for this really notable issue are Editor Austin Smith and Associate Editor Johnson F. Hammond. Dr. Hammond had prepared a story of "The Birth of the Journal." Dr. Smith's single editorial—one of the finest he has ever written — "Partners in Progress" — struck the keynote for all the other contributions. The first was a letter from President Eisenhower extending "felicitations to the *Journal of the American Medical Association* on its 75th anniversary." The next was by Dr. Gundersen — "Medicine and the Community." Another was by Mr. Charles S. Rhyne, president of the American Bar

Association, on "Medicine and the Legal Profession." Among other contributors were J. Edgar Hoover, Charles F. Kettering, John Steinbeck, Edward V. Rickenbacker, Walt Disney, Frederic W. Ecker, DeWitt Wallace, and other notable names.

Since most of the NORTH CAROLINA MEDICAL JOURNAL readers also read the *Journal of the American Medical Association*, it is not necessary to comment further on the issue except to congratulate our parent organization upon having such a splendid summary of progress made within the past 75 years, and to compliment Dr. Austin Smith upon his wise choice of a central theme, and of contributors to discuss that theme. His editorial was so noteworthy that a few sentences from it are worthy of quoting with emphatic appeal.

> No one can exist without the direct or indirect contributions of others, which is forcefully proved by the appearance of our guest contributors in the pages of this issue of THE JOURNAL . . . Leadership is necessary, but understanding is as important.
>
> Writer, news commentator, industrialist, educator, name whom you will, are all partners in our country. This in itself engenders a depth of responsibility that is sobering, but when one remembers that much of the world today is looking for leadership, all of us must be mindful of additional responsibility as we work and play. Perhaps the people in some of the countries elsewhere might have had fewer problems if they had paused long enough in their work and play to encourage men and women to shake hands with each other as partners in orderly progress. Maybe there would be less fist shaking today.

* * *

THE NATIONAL HEALTH SERVICE AFTER TEN YEARS

The *British Medical Journal* for July 5 devoted a special supplement to reviewing the National Health Service's ten-year record. Reading the various comments leaves a number of impressions. The first is that in Great Britain some form of tax-supported medical service was inevitable, since all three parties favored it. The second is that it has really worked better than was first thought, in spite of the enormous error of calculation as to its cost.

A third impression which has been repeatedly called to attention since the service began is that the general practitioner has suffered most under the plan—both in prestige and income. Even Lord Moran, who favored the National Health Service from the beginning, said: "I am bound to take notice here of the prevalent discontent among general practitioners, because it may have a bearing on the staffing of the hospitals."

He then qualified this statement by adding: "The seeds of unrest are, I believe, to be found in an insidious decline in the status of the general practitioner over a number of years. It is not due to the Service, but mainly to the conditions of his life before the Service." There seems to be little doubt but that the specialist "consultant" has fared much better than the general practitioner.

Another thought expressed by many is that the quality of medical students has deteriorated and that many doctors discourage their sons from following in their footsteps.

The final paper in the supplement is the report by Professor Paul Gemmill (Ph.D.), professor of economics in the University of Pennsylvania, of his seven months' survey of the National Health Service. The fallacy of statistics is shown by the fact that he interpreted the information gained from interviews with doctors and patients as favorable to the Service, whereas the leading editorial in the *Journal* found his figures "disquieting."

Professor Gemmill concluded his report by quoting a Conservative Member of Parliament as saying: "We do not have a first-class, but only a second-class medical service. However, before 1948 it was only fourth-class. It has been improving ever since, and by and by we shall have a Health Service that is truly first-class."

In reply, the editorial commented that "what will surprise many is the reply to the question put to patients by Professor Gemmill about a comparison of the medical services under N.H.S. with those before 1948: only 37 per cent said the N.H.S. was better than what went before; 50 per cent said the medical service to-day was about the same as it used to be; and 13 per cent said conditions were actually worse. It is to be hoped that the implications of this result will be understood by the Conservative M.P. whose stupid and ill-informed observation is reported at the end of Professor Gemmill's interesting paper."

President's Message

This issue of the JOURNAL carries a roster of the officers and of the committees and section chairmen of the Society. The structure of the Society's organization should be studied closely, and each member should become familiar with the new commission form of organization.

Your immediate past president, Edward W. Schoenheit, appointed a committee consisting of Donald B. Koonce, John S. Rhodes, and John C. Reece to implement a Survey on Committee Structure within the state. After surveying committee structure in several state societies, the basic commission type of structure was recommended to the Executive Committee and in turn to the House of Delegates as being best for the Society. At the 1958 meeting in Asheville, the House of Delegates approved these recommendations. This change in organization was made necessary by the growth of the Society. As it became necessary to divide and assign responsibility, Dr. Schoenheit, working with the Survey Committee, reduced the number of committees from 78 to 48. The number has now been reduced to 42.

The Survey report recommended that future officers of the Society recognize that the present committee structure can take care of most new problems, with such problems being assigned to existing committees. It is hoped that the commission form of organization will eliminate duplication of effort, reduce the burden of the personnel in the Executive Office and of the executive officers, and save time in handling the affairs of the Society at the annual meeting, with six complete and adequate commission reports to the House of Delegates in place of the many committee reports as in the past.

Each commission is to consist of a chairman and the chairmen of the subcommittees of that commission. The Nominating Committee and the Grievance Committee, each as per the Constitution, shall remain as entities, the Nominating Committee to consist of a member from each district, elected by delegates from that district, the chairman being elected by the members of the committee; and the Grievance Committee to consist of the five most recent available presidents, with the senior member as chairman and the junior member as secretary.

It is recommended that each commission have periodic meetings to discuss and formulate the policy of its various committees, subject to the approval of the Executive Committee. Each commission is to make an annual report to the House of Delegates for the commission and its committees. The commissions have been set up as recommended by the Survey Committee and are as follows:

I. Professional Services
II. Public Services
III. Public Relations
IV. Administration
V. Annual Convention
VI. Advisory and Study
VII. Nominating Committee
VIII. Grievance Committee

The present structure of the Society, if considered in the light of the organization of our federal government, would work about as follows: The House of Delegates with representation from each county medical society is comparable to the House of Representatives and has equal power. The Executive Council is comparable to the Senate, but is without power other than that held by its members as representatives of the House of Delegates. The elective officers are the Administrative Department. The Commissioners serve in a capacity similar to the President's Cabinet. The Nominating Committee is similar to the Electoral College. The Grievance Committee serves as a court, but only in an advisory capacity to the Executive Council.

With the Society so organized, the officers can develop policy and new programs. It is hoped that during the coming year steps can be taken toward developing affiliated teaching services in our community hospitals coordinated with our medical school programs. Another program that should be of prime interest to the Society is the development of medical scholarships at the county level for the training of doctors in our schools of medicine. A third and acute problem is our relations with all organizations and agencies interested and participating in the health of our citizens. Future messages from this page will carry comments on these subjects.

LENOX D. BAKER, M.D.

Committees and Organizations

SCHEDULE OF COMMITTEE AND COMMISSION APPOINTMENTS, 1958-1959

NOTE: The Committees listed herein have been authorized by President Lenox D. Baker and/or are required under the Constitution and By-Laws.

Particular note should be taken of the authorization of the House of Delegates of a Commission form of organizational activity and that all committees, excepting Committee on Nomination, Committee on Negotiation, and Committee on Grievances, are segregated under the respective Commission in which the function of the committee logically rests. This will tend to eliminate overlapping and duplication in activity programs and result in coordination of the work of the Society in a manner to lessen the work of the delegates in the Annual meeting of the House of Delegates.

(The President, Secretary and Executive Director of the Society are ex- officio members of all committees and, along with the Commission Chairman, should receive notice of meetings, agenda and minutes of committee meetings during the activity year.)

I. ADMINISTRATION COMMISSION

Wayne J. Benton, M.D., Chairman
514½ S. Elm Street
Greensboro, North Carolina

Committee listing

1. **Finance Committee on (I, 1)** #18
   Wayne J. Benton, M.D., Chairman
   514½ S. Elm Street
   Greensboro, North Carolina
2. **Headquarters Facility for Medical Society, Committee on, (I, 2)** #21
   Alexander Webb, Jr., M.D., Chairman
   221 Bryan Building
   Raleigh, North Carolina

II. ADVISORY AND STUDY COMMISSION

Jacob H. Shuford, M.D., Chairman
7 Main Avenue Place, S.W.
Hickory, North Carolina

1. **Auxiliary Advisory and Archives of Medical Society History, Committee on, (II, 1)** #1
   Roscoe D. McMillan, M.D., Chairman
   P.O. Box 232
   Red Springs, North Carolina
2. **American Medical Education Foundation, Committee on, (II,2)** #2
   Harry L. Johnson, M.D., Chairman
   P.O. Box 530
   Elkin, North Carolina
3. **Blue Shield, Committee on, (II, 3)** #7
   Jacob H. Shuford, M.D., Chairman
   7 Main Avenue Place, S.W.
   Hickory, North Carolina
4. **Constitution and By-Laws, Committee on, (II, 4)** #12
   Roscoe D. McMillan, M.D., Chairman
   P.O. Box 232
   Red Springs, North Carolina
5. **Credit Bureau, Medical, Committee on, (II, 5)** #13
   W. Howard Wilson, M.D., Chairman
   403 Professional Building
   Raleigh, North Carolina
6. **Industrial Commission of North Carolina, Committee to work with, (II, 6)** #23
   J. Thomas Dameron, M.D., Chairman
   309 Hillsboro Street
   Raleigh, North Carolina
7. **Medical Care of Dependents of Members of Armed Forces, Committee on, (II, 7)** #28
   David M. Cogdell, M.D., Chairman
   911 Hay Street
   Fayetteville, North Carolina
8. **Student A.M.A. Chapters, Committee Advisory to, (II, 8)** #41
   Isaac E. Harris, Jr., M.D., Chairman
   1200 Broad Street
   Durham, North Carolina

III. ANNUAL CONVENTION COMMISSION

R. Beverly Raney, M.D., Chairman
North Carolina Memorial Hospital
Chapel Hill, North Carolina

1. **Arrangement of Facilities Annual Session, Committee on, (III, 1)** #4
   John S. Rhodes, M.D., Chairman
   700 West Morgan Street
   Raleigh, North Carolina
2. **Audio-Visual Scientific Postgraduate Instruction, Committee on, (III, 2)** #5
   Leonard J. Goldner, M.D., Chairman
   Duke Hospital
   Durham, North Carolina
3. **Awards and Scientific Works, Committee on, (III, 3)** #6
   Rowland T. Bellows, M.D., Chairman
   1012 Kings Drive
   Charlotte, North Carolina
4. **Delegates Credentials to House of Delegates, Committee on, (III, 4)** #14
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   Wachovia Bank Building
   Goldsboro, North Carolina
5. **Exhibits Scientific, Committee on, (III, 5)** #16
   Everett I. Bugg, Jr., M.D., Chairman
   1240 Broad and Englewood
   Durham, North Carolina
6. **Golf Tournament Medical, Committee on, (III, 6)** #20
   Walter M. Watts, M.D., Chairman
   Doctors Building
   Asheville, North Carolina

IV. PROFESSIONAL SERVICE COMMISSION

George W. Paschal, Jr., M.D., Chairman
311 Lands Building
Raleigh, North Carolina

1. **Emergency Medical Service and Military Affairs, Committee on, (IV, 1)** #15
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211 South Main Street
Stantonsburg, North Carolina

1. **Hospital and Professional Relations and Liaison to North Carolina Hospital Association, Committee on, (V, 1)** #22
Theodore S. Mees, M.D., Chairman
501 West 27th Street
Lumberton, North Carolina

2. **Legislation, Committee on, (V, 2)** #25
Hubert McN. Poteat, Jr., M.D., Chairman
207 South Third Street
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3. **Medical-Legal, Committee on, (V, 3)** #27
Bennette B. Pool, M.D., Chairman
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Winston-Salem, North Carolina

4. **Public Relations, Committee on, (V, 4)** #37
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211 South Main Street
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5. **Rural Health and General Practitioner Award, Committee on, (V, 5)** #39
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44 Academy Street
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VI. PUBLIC SERVICE COMMISSION

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Kernodle Clinic
Burlington, North Carolina

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Chapel Hill, North Carolina

2. **Board of Public Welfare of North Carolina, Committee Advisory to, (VI, 2)** #8
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P.O. Box 98
Roseboro, North Carolina

3. **Cancer, Committee on, (VI, 3)** #9
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310 West 4th Street
Winston-Salem, North Carolina

4. **Child Health, Committee on, (VI, 4)** #10
Angus M. McBryde, M.D., Chairman
809 West Chapel Hill Street
Durham, North Carolina

5. **Chronic Illness, Tuberculosis and Heart Disease, Committee on, (VI, 5)** #11
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Burlington, North Carolina

6. **Maternal Health, Committee on, (VI, 6)** #26
James F. Donnelly, M.D., Chairman
300 South Hawthorne Road
Winston-Salem, North Carolina

7. **Mental Health, Committee on, (VI, 7)** #29
Allyn B. Choate, M.D., Chairman
1012 Kings Drive
Charlotte, North Carolina

8. **Occupational Health, Committee on (VI, 8)** #34
Harry L. Johnson, M.D., Chairman
P.O. Box 530
Elkin, North Carolina

9. **Poliomyelitis, Committee on, (VI, 9)** #36
Samuel F. Ravenel, M.D., Chairman
104 Northwood Street
Greensboro, North Carolina

10. **Rehabilitation Physical, Committee on (VI, 10)** #38
George W. Holmes, M.D., Chairman
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Winston-Salem, North Carolina

11. **School Health, Committee on, (VI, 11)** #40
Charles H. Gay, M.D., Chairman
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Charlotte, North Carolina

12. **Veterans Affairs, Committee on, (VI, 12)** #42
Samuel L. Elfmon, M.D., Chairman
225 Green Street
Fayetteville, North Carolina

VII. NOMINATIONS, COMMITTEE ON (not a commission constitutionally provided) #32

Graham B. Barefoot, M.D., Chairman
10th and Rankin Streets
Wilmington, North Carolina

VIII. GRIEVANCES, COMMTTEE ON (not a commission By-Law provided) #19

Joseph A. Elliott, Sr., M.D., Chairman
1012 Kings Drive
Charlotte, North Carolina

IX. NEGOTIATIONS, COMMTTEE ON, (not a commission By-Law provided) #31

Amos N. Johnson, M.D., Chairman
Garland, North Carolina

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Ethel May Brownsberger, M.D., 75 Hendersonville Road, Biltmore
James B. Bullitt, M.D., Consultant, Medical Building, Chapel Hill
Coy C. Carpenter, M.D., Consultant, Bowman Gray, Winston-Salem
Wilburt C. Davison, M.D., Consultant, Duke Hospital, Durham
Paul W. Johnson, M.D., 2240 Cloverdale Ave., Winston-Salem
Wingate M. Johnson, M.D., 300 S. Hawthorne Road, Winston-Salem
Rose Pully, M.D., 1007 N. College Street, Kinston
James P. Rousseau, M.D., 1014 West Fifth Street, Winston-Salem
James Tidler, M.D., 1010 Grace Street, Wilmington
Paul F. Whitaker, M.D., 1205 N. Queen Street, Kinston

2. **Committee on American Medical Education Foundation (AMEF) (4) II-2**
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Wm. Pettway Peete, M.D., Duke Hospital, Durham
Manson Meads, M.D., Bowman Gray, Winston-Salem
Wm. LeRoy Fleming, M.D., UNC School of Medicine, Chapel Hill

3. **Committee on Anesthesia Study Commission (11) VI-1**
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John R. Ashe, Jr., M.D., 624-A N. Church Street, Concord
Horace M. Baker, Jr., M.D., Medical Arts Building, Lumberton
Duncan G. Calder, Jr., M.D., Ardsley Road, Concord
Samuel R. Cozart, M.D., 122 S. Green Street, Greensboro
D. LeRoy Crandell, M.D., Bowman Gray, Winston-Salem
Joseph S. Hiatt, Jr., M.D., 208 S. W. Broad Street, Southern Pines
Frank S. Parrott, M.D., 911 W. Henderson Street, Salisbury
Will Camp Sealy, M.D., Duke Hospital, Durham
Thos. B. Wilson, M.D., Rex Hospital Laboratory, Raleigh
Charles R. Stephen, M.D., Box 3535, Duke Hospital, Durham

4. **Committee to Arrange Facilities for Annual Sessions (4) III-1**
John S. Rhodes, M.D., Chairman, 700 W. Morgan Street, Raleigh
Joshua F. B. Camblos, M.D., 500 New Medical Building, Asheville
Millard D. Hill, M.D., 15 West Hargett Street, Raleigh
Theodore S. Raiford, M.D., 301 Doctors Building, Asheville

5. **Committee on Scientific Audio-Visual Postgraduate Instruction (10) III-2**
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Joseph F. McGowan, M.D., Vice-Chairman, 200 New Medical Building, Asheville
Isador Meschan, M.D., Bowman Gray, Winston-Salem
L. Everett Sawyer, M.D., 104 W. Colonial Ave., Elizabeth City
B. E. Stephenson, M.D., P.O. Box 206, Rich Square
J. O. Williams, M.D., Cabarrus Memorial Hospital, Concord
Robert W. Williams, M.D., 1007 Murchison Building, Wilmington
Ernest H. Wood, M.D., N. C. Memorial Hospital, Chapel Hill

6. **Committee on Awards and Scientific Works (11) III-3**
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Bruce B. Blackmon, M.D., Buies Creek
David Cayer, M.D., Bowman Gray, Winston-Salem
Raphael W. Coonrad, M.D., Broad and Englewood, Durham
Douglas McKay Glasgow, M.D., 1012 Kings Drive, Charlotte
George W. James, M.D., 205 S. Hawthorne Road, Winston-Salem
Wm. M. Long, M.D., S. Main Street, Mocksville
Charles M. Norfleet, Jr., M.D., Bowman Gray, Winston-Salem
E. D. Shackelford, Jr., M.D., 2001 Liberty Road, Asheboro
Emory Hunt, Consultant, University of North Carolina, Chapel Hill

7. **Committee on Blue Shield (10) II-3**
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W. Z. Bradford, M.D., (1961), 1509 Elizabeth Avenue, Charlotte
Willard C. Goley, M.D., (1959), 214 N. Marshall Street, Graham
Wm. H. Flythe, M.D., (1961), 624 Quaker Lane, High Point
John R. Hoskins, III, M.D., (1960), 203 Doctors Building, Asheville
Julius A. Howell, M.D., (1961), Bowman Gray, Winston-Salem
Robert W. King, M.D., (1959), 107 Bradford Avenue, Fayetteville
Louis L. Klostermyer, M.D., (1960), 103 Doctors Building, Asheville
Louis C. Roberts, M.D., (1960), 1200 Broad Street, Durham
Max P. Rogers, M.D., (1961), 624 Quaker Lane, High Point

8. **Committee Advisory to North Carolina State Board of Public Welfare (7) VI-2**
J. Street Brewer, M.D., Chairman, P.O. Box 98, Roseboro
Bruce B. Blackmon, M.D., Buies Creek
Allyn B. Choate, M.D., 1012 Kings Drive, Charlotte 7
H. Fleming Fuller, M.D., Kinston Clinic, Kinston
Robert D. Higgins, M.D., State Board of Health, Raleigh
J. Kempton Jones, M.D., 227 East Franklin Street, Chapel Hill
Wm. W. Noell, M.D., 309 Wyche Street, Henderson

9. **Committee on Cancer (12) (Legal — 1 each Congressional District) VI-3**
James F. Marshall, M.D., Chairman, (5th), 310 W. 4th Street, Winston-Salem
George E. Bell, Jr., M.D., (8th), Bowman Gray, Winston-Salem
Wm. H. Bell, Jr., M.D., (3rd), P.O. Box 1580, New Bern
Grover C. Bolin, Jr., M.D., (4th), 423 Hancock Street, Smithfield
Wm. R. Bosien, M.D., (11th), Box 518, Tryon
Joshua F. B. Camblos, M.D., (12th), 500 New Medical Building, Asheville
Charles I. Harris, Jr., M.D., (1st), Martin General Hospital, Williamston
Isaac E. Harris, Jr., M.D., (6th), 1200 Broad Street, Durham
Charles Glenn Mock, M.D., (10th), 200 Hawthorne Lane, Charlotte
Samuel L. Parker, Jr., M.D., (2nd), Kinston Clinic, Kinston
David L. Pressly, M.D., (9th), Stearns Building, Statesville
R. Bertram Williams, M.D., (7th), 308 N. 3rd Street, Wilmington

10. **Committee on Child Health (7) VI-4**
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Edward C. Curnen, Jr., M.D., UNC School of Medicine, Chapel Hill
Clyde R. Hedrick, M.D., Box 619, Lenoir
Paul F. Maness, M.D., 321 W. Front Street, Burlington
Lewis S. Rathbun, M.D., 304 Doctors Building, Asheville
Robert L. Vann, M.D., Bowman Gray, Winston-Salem

11. Committee on Chronic Illness, Including Tuberculosis and Heart Disease (12) VI-5
John R. Kernodle, M.D., Chairman, Kernodle Clinic, Burlington
James P. Alexander, M.D., 1012 Kings Drive, Charlotte
Wm. M. Coppridge, M.D., 1200 Broad Street, Durham
Robt. H. Dovenmuehle, Duke Hospital, Durham
Harold D. Green, M.D., Bowman Gray, Winston-Salem
Joseph S. Hiatt, Jr., M.D., Vice-Chairman, 208 S. W. Broad Street, Southern Pines
Emery T. Kraycirik, M.D., Box 1153, Burlington
Edward C. Kunkle, M.D., Duke Hospital, Durham
Daniel A. McLaurin, M.D., P.O. Box 37, Dobson
Robert L. McMillan, M.D., Bowman Gray, Winston-Salem
Elbert L. Persons, M.D., Duke Hospital, Durham
Kenneth D. Weeks, M.D., 1605 W. Thomas Street, Rocky Mount

12. Committee on Constitution and By-Laws (5) II-4
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Milton S. Clark, M.D., Wachovia Bank Building, Goldsboro
M. D. Hill, M.D., 15 W. Hargett Street, Raleigh
Moir S. Martin, M.D., 314 Cherry Street, Mt. Airy
Louis DeS. Shaffner, M.D., 300 S. Hawthorne Road, Winston-Salem

13. Committee on Credit Medical Bureaus (5) II-5
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Moir S. Martin, M.D., 314 Cherry Street, Mt. Airy
Roy B. McKnight, M.D., Hawthorne Medical Center, Charlotte
Ralph J. Sykes, M.D., 205 Rawley Avenue, Mt. Airy

14. Committee on Credentials of Delegates to House of Delegates (4) III-4
Milton S. Clark, M.D., Chairman, Wachovia Bank Building, Goldsboro
T. Tilghman Herring, M.D., Wilson Clinic, Wilson
James T. Littlejohn, M.D., 406 Doctors Building, Asheville
George A. Smedberg, M.D., 1308 Rainey Street, Burlington

15. Committee on Emergency Medical and Military Service (8) IV-1
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Chauncey L. Royster, M.D., Co-Chairman, 707 W. Morgan Street, Raleigh
M. J. Hornowski, M.D., 306 Doctors Building, Asheville
J. Kingsley MacDonald, M.D., 1524 Harding Place, Charlotte
Leslie M. Morris, M.D., Medical Building, Gastonia
H. Mack Pickard, M.D., 7 N. 17th Street, Wilmington
George C. Rowe, M.D., 10 S. Logan Street, Marion
George A. Watson, M.D., 306 S. Gregson Street, Durham

16. Committee on Scientific Exhibits (4) III-5
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Raphael W. Coonrad, M.D., Co-Chairman, Broad and Englewood, Durham
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R. Beverly Raney, M.D., N. C. Memorial Hospital, Chapel Hill

17. Committee on Eye Care and Eye Bank (7) IV-2
Horace M. Dalton, M.D., Chairman, 400 Glenwood Avenue, Kinston
Wm. Banks Anderson, M.D., Box 3802, Duke Hospital, Durham
Louten R. Hedgpeth, M.D., Medical Arts Building, Lumberton
Edward E. Moore, M.D., 706 Flatiron Building, Asheville
Richard B. Rankin, Jr., M.D., Cabarrus Hospital, Concord
J. David Stratton, M.D., 1012 Kings Drive, Charlotte
George T. Thornhill, M.D., 720 W. Jones Street, Raleigh

18. Committee on Finance (3) I-1
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Arthur L. Daughtridge, M.D., Box 111, Rocky Mount
A. Hewitt Rose, Jr., M.D., 2009 Clark Avenue, Raleigh

19. Committee on Grievances (5) (1st Five Past Presidents) VIII-0
Joseph A. Elliott, Sr., M.D., Chairman, 1012 Kings Drive, Charlotte
Edward W. Schoenheit, M.D., Secretary, 46 Haywood Street, Asheville
Donald B. Koonce, M.D., 408 N. 11th Street, Wilmington
James P. Rousseau, M.D., 1014 West Fifth Street, Winston-Salem
Zack D. Owens, M.D., Medical Building, Elizabeth City

20. Committee on Medical Golf Tournament (3) III-6
Wm. W. Watts, M.D., Chairman, Doctors Building, Asheville
Wm. A. Brewton, M.D., 5 Lake Drive, Enka
W. Boyd Owens, M.D., Box 590, Waynesville

21. Committee on Medical Society Headquarters Facilities (23) I-2
Alexander Webb, Jr., M.D., Chairman, 221 Bryan Building, Raleigh
Graham B. Barefoot, M.D., 10th and Rankin Streets, Wilmington
Newsom P. Battle, M.D., 404 Falls Road, Rocky Mount
Harry L. Brockmann, M.D., 624 Quaker Lane, High Point
Wm. M. Coppridge, M.D., 1200 Broad Street, Durham
Elias S. Faison, M.D., 1012 Kings Drive, Charlotte
Charles I. Harris, Jr., M.D., Martin General Hospital, Williamston
Isaac E. Harris, Jr., M.D., 1200 Broad Street, Durham
Frederick C. Hubbard, M.D., Box 30, North Wilkesboro
Wm. A. Hoggard, Jr., M.D., 1502 Carolina Avenue, Elizabeth City
Wm. P. Kavanaugh, M.D., Cooleemee
W. Walton Kitchin, M.D., Sampson County Hospital, Clinton
Donald B. Koonce, M.D., 408 N. 11th Street, Wilmington
Ross S. McElwee, Jr., M.D., 1012 Kings Drive, Charlotte
Hunter McG. Sweaney, M.D., 1200 Broad Street, Durham

Robert M. McMillan, M.D., 140 S. W. Broad Street, Southern Pines
Malory A. Pittman, M.D., Wilson Clinic, Wilson
James Kent Rhodes, M.D., 307 Woodburn Road, Raleigh
A. Hewitt Rose, Jr., M.D., 2009 Clark Avenue, Raleigh
James P. Rousseau, M.D., 1014 W. Fifth Street, Winston-Salem
O. Norris Smith, M.D., 1019 Professional Village, Greensboro
Warner L. Wells, M.D., UNC School of Medicine, Chapel Hill
Thad B. Wester, M.D., Medical Arts Building, Lumberton

22. **Committee on Hospital and Professional Relations and Liaison to North Carolina Hospital Association (9) V-1**
Theodore H. Mees, M.D., Chairman, 501 W. 27th Street, Lumberton
Grover C. Bolin, Jr., M.D., 423 Hancock Street, Smithfield
Arthur H. London, Jr., M.D., 306 S. Gregson Street, Durham
F. M. Simmons Patterson, M.D., 1402 Rhem Avenue, New Bern
Wm. H. Pettus, Jr., M.D., 1012 Kings Drive, Charlotte
James S. Raper, M.D., Doctors Building, Asheville
C. F. Siewers, M.D., 1004 Hay Street, Fayetteville
J. O. Williams, M.D., Cabarrus Memorial Hospital, Concord
George T. Wood, Jr., M.D., 330 Locke Street, High Point

23. **Committee to Work with North Carolina Industrial Commission (6) II-6**
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Wm. F. Hollister, M.D., Moore County Hospital, Pinehurst
James S. Mitchener, Jr., M.D., Scotland County Memorial Hospital, Laurinburg
Guy L. Odom, M.D., Duke Hospital, Durham
Malory A. Pittman, M.D., Wilson Clinic, Wilson
Charles T. Wilkinson, M.D., 205 Waite Street, Wake Forest

24. **Committee on Insurances (6) IV-3**
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John C. Burwell, Jr., M.D., 101 N. Elm Street, Greensboro
Frank W. Jones, M.D., Catawba Hospital, Newton
Alban Papineau, M.D., Plymouth Clinic, Plymouth
Robt. H. Brashear, Jr., N. C. Memorial Hospital, Chapel Hill
S. Glenn Wilson, M.D., Box 158, Angier

25. **Committee on Legislation (11) V-2**
Hubert McN. Poteat, Jr., M.D., Chairman, 207 S. Third Street, Smithfield
Sam D. McPherson, Jr., M.D., McPherson Hospital, Durham
Joseph S. Holbrook, M.D., Davis Hospital, Statesville
Lenox D. Baker, M.D., President (Ex Officio) Duke Hospital, Durham
John S. Rhodes, M.D., Secretary (Ex Officio), 700 W. Morgan Street, Raleigh
Jesse Caldwell, Jr., M.D., Consultant, 114 W. Third Street, Gastonia
H. Fleming Fuller, M.D., Consultant, Kinston Clinic, Kinston
Donald B. Koonce, M.D., Consultant, 408 N. 11th Street, Wilmington
Leslie M. Morris, M.D., Consultant, Medical Building, Gastonia
S. F. Ravenel, M.D., Consultant, 104 E. Northwood Street, Greensboro
Ben F. Royal, M.D., Consultant, 907 Evans Street, Morehead City

26. **Committee on Maternal Health (14) VI-6**
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Glenn E. Best, M.D., (3rd)—(1960), Main Street, Clinton
Guy H. Branaman, Jr., M.D., (6th)—(1961), 500 St. Mary's Street, Raleigh
Jesse Caldwell, Jr., M.D., (7th) — (1961), 114 W. Third Street, Gastonia
Milton S. Clark, M.D., (4th)—(1961), Wachovia Bank Building, Goldsboro
W. Otis Duck, M.D., (10th)—(1963), Box 387, Mars Hill
Avon H. Elliot, M.D., (Ex Officio), State Board of Health, Raleigh
Wm. A. Hoggard, Jr., M.D., (1st)—(1959), 1502 Carolina Avenue, Elizabeth City
Paul R. Kearns, M.D., (9th) — (1964), 225 North Center Street, Statesville
Frank R. Lock, M.D., (BG)—(1959), 300 S. Hawthorne Road, Winston-Salem
Hugh A. McAllister, M.D., (5th)—(1959), Medical Arts Building, Lumberton
Charles T. Pace, M.D., (2nd)—(1963), State Bank Building, Greenville
Roy T. Parker, M.D., (Duke)—(1960), Box 3517, Duke Hospital, Durham
Robert A. Ross, M.D., (UNC)—(1963), N. C. Memorial Hospital, Chapel Hill

27. **Medical-Legal Committee (6) V-3**
Bennette B. Pool, M.D., Chairman, 414 Nissen Building, Winston-Salem
Millard B. Bethel, M.D., 615 E. 4th Street, Charlotte
Connell G. Garrenton, M.D., Bethel Clinic, Bethel
June U. Gunter, M.D., Watts Hospital, Durham
Theodore S. Raiford, M.D., 301 Doctors Building, Asheville
James Tidler, M.D., 1010 Grace Street, Wilmington

28. **Committee on Medical Care Armed Forces Dependents ("MEDICARE") (11) (plus Subcommittee Consultants—20) II-7**
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Graham A. Barden, Jr., M.D., 414 Johnson Street, New Bern
Everett I. Bugg, Jr., M.D., Broad and Englewood, Durham
Jesse Caldwell, Jr., M.D., 114 W. Third Street, Gastonia
Daniel S. Currie, Jr., M.D., 111 Bradford Ave., Fayetteville
Powell G. Fox, M.D., 302 Lands Building, Raleigh
Donald B. Koonce, M.D., 408 N. 11th Street, Wilmington
J. Douglas McRee, M.D., 2109 Clark Ave., Raleigh
John M. Mewborn, M.D., 108 S. Green Street, Farmville
Wm. A. Peters, Jr., M.D., 206 S. Road Street, Elizabeth City
Donald H. Vollmer, M.D., 403 Doctors Building, Asheville

A—General Medicine

John L. McCain, M.D., Chairman, Wilson Clinic,, Wilson
Milton S. Clark, M.D., Wachovia Bank Building, Goldsboro
Leonard E. Fields, M.D., Box 788, Chapel Hill
Joseph M. Hitch, M.D., 415 Professional Building, Raleigh

B—Radiology

Thomas G. Thurston, M.D., Chairman, 512 Mocksville Avenue, Salisbury
Joe Lee Frank, Jr., M.D., Roanoke-Chowan Hospital, Ahoskie

C—Surgery

W. Walton Kitchin, M.D., Chairman, Sampson County Hospital, Clinton
Howard M. Ausherman, M.D., 200 Hawthorne Lane, Charlotte
Fred K. Garvey, M.D., Bowman Gray, Winston-Salem
Wm. F. Hollister, M.D., Moore County Hospital, Pinehurst
George R. Miller, M.D., 412 Realty Building, Gastonia
Guy L. Odom, M.D., Duke Hospital, Durham
C. F. Siewers, M.D., 201 Churchill Drive, Fayetteville
Larry Turner, M.D., 1110 W. Main Street, Durham

D—Obstetrics and Gynecology

A. Ledyard DeCamp, M.D., Chairman, 1505 Elizabeth Avenue, Charlotte
John C. Burwell, Jr., M.D., 101 N. Elm Street, Greensboro
R. Vernon Jeter, M.D., Plymouth Clinic, Plymouth

E—Pediatrics

George A. Watson, M.D., Chairman, 306 S. Gregson Street, Durham
Charles R. Bugg, M.D., 627 W. Jones Street, Raleigh
Dan P. Boyette, Jr., M.D., 217 W. Main Street, Ahoskie

29. Committee on Mental Health (13) VI-7

Allyn B. Choate, M.D., Chairman, 1012 Kings Drive, Charlotte
Wilmer C. Betts, Jr., M.D., 2109 Clark Ave., Raleigh
E. W. Busse, M.D., Duke Hospital, Durham
John W. Ervin, M.D., Box 132, State Hospital, Morganton
John A. Fowler, M.D., 2212 Erwin Road, Durham
Thomas T. Jones, M.D., 604 W. Chapel Hill Street, Durham
Hans Lowenbach, M.D., Duke Hospital, Durham
James T. Proctor, M.D., 428 Ridgefield Road, Chapel Hill
Walter A. Sikes, M.D., State Hospital, Raleigh
Joseph B. Stevens, M.D., 1017 Professional Village, Greensboro
R. Burke Suitt, M.D., VA Hospital, Perry Point, Maryland
Lloyd J. Thompson, M.D., Child Guidance Clinic of Forsyth County, Winston-Salem
David A. Young, M.D., 714 St. Mary's Street, Raleigh

30. Committee on Necrology (3) IV-4

Charles H. Pugh, M.D., Chairman, Box 527, Gastonia
Karl B. Pace, M.D., 412 State Bank Building, Greenville
Ben F. Royal, M.D., Box 628, Morehead City

31. Committee on Negotiations (3) IX-0

Amos N. Johnson, M.D., Chairman, Garland
Wm. F. Hollister, M.D., Moore County Hospital, Pinehurst
Theodore S. Raiford, M.D., 301 Doctors Building, Asheville

32. Nominating Committee (10) VII-0

Graham B. Barefoot, M.D., Chairman, (3rd Medical District), 10th and Rankin Streets, Wilmington
John B. Anderson, M.D., (Tenth Medical District), 215 Doctors Building, Asheville
Millard B. Bethel, M.D., (7th Medical District), 615 E. 4th Street, Charlotte
Willard C. Goley, M.D., (6th Medical District), 214 N. Marshall Street, Graham
Wm. M. Long, M.D., (9th Medical District), S. Main Street, Mocksville
Robert M. McMillan, M.D., (5th Medical District), 140 S. W. Broad Street, Southern Pines
J. C. Peele, M.D., (2nd Medical District), Kinston Clinic, Kinston
Hubert McN. Poteat, Jr., M.D., (4th Medical District), 207 S. W. Third Street, Smithfield
Wm. H. Romm, M.D., (1st Medical District), P.O. Box 1, Moyock
Walter T. Tice, M.D., (8th Medical District), 624 Quaker Lane, High Point

33. Committee of Physicians on Nursing (8) IV-5

Harry L. Brockmann, M.D., Chairman, 624 Quaker Lane, High Point
Robert R. Cadmus, M.D., N. C. Memorial Hospital, Chapel Hill
Badie T. Clark, M.D., Carolina General Hospital, Wilson
James E. Davis, M.D., 1200 Broad Street, Durham
Moir S. Martin, M.D., 314 Cherry Street, Mt. Airy
David T. Smith, M.D., Duke Hospital, Durham
Vernon H. Youngblood, M.D., Route 8, Kannapolis-Concord Highway, Concord

Nursing and Nursing Education—Subcommittee

David T. Smith, M.D., Chairman, Duke Hospital, Durham

Nursing Careers—Subcommittee

Mark McD. Lindsey, M.D., Chairman, Hamlet Hospital, Hamlet

Improvement of the Care of the Patient—Subcommittee

David T. Smith, M.D., Chairman, Duke Hospital, Durham
Harry L. Brockmann, M..D,, 624 Quaker Lane, High Point

34. Committee on Occupational Health (9) VI-8

Harry L. Johnson, M.D., Chairman, Box 530, Elkin
B. F. Cozart, M.D,. 1116 S. Main Street, Reidsville
Victor M. Crescenzo, M.D., 315 S. Main Street, Reidsville
MacRoy Gasque, M.D., Pisgah Forest
John M. Hall, M.D., W. Main Street, Elkin
John E. McLain, M.D., 3916 Rugby Road, Hope Valley, Durham
C. Hunter Moricle, M.D., 117 Gilmer Street, Reidsville
Wm. P. Richardson, M.D., N. C. Memorial Hospital, Box 758, Chapel Hill
Logan T. Robertson, M.D., 17 Charlotte Street, Asheville

35. Committee on Postgraduate Medical Study (8) IV-6

Joseph B. Stevens, M.D., Chairman, 1017 Professional Village, Greensboro
David Cayer, M.D., Bowman Gray, Winston-Salem

W. Otis Duck, M.D., Box 387, Mars Hill
Amos N. Johnson, M.D., Garland
Wm. McN. Nicholson, M.D., Duke Hospital, Durham
Samuel L. Parker, M.D., Kinston Clinic, Kinston
Wm. P. Richardson, M.D., N. C. Memorial Hospital, Chapel Hill
Frank R. Reynolds, M.D., 1613 Dock Street, Wilmington

36. Committee on Poliomyelitis (15) V-4
Samuel F. Ravenel, M.D., Chairman, 104 E. Northwood Street, Greensboro
Jay M. Arena, M.D., 1410 Duke University Road, Durham
Edward P. Benbow, Jr., M.D., 104 E. Northwood Street, Greensboro
Millard B. Bethel, M.D., 615 E. 4th Street, Charlotte
Charles R. Bugg, M.D., 627 W. Jones Street, Raleigh
Sidney S. Chipman, M.D., Box 229, Chapel Hill
Ralph B. Garrison, M.D., 222 N. Main Street, Hamlet
Wm. F. Harrell, Jr., M.D., Guaranty Bank Building, Elizabeth City
Richard S. Kelly, M.D., 1606 Morganton Road, Fayetteville
Donald B. Koonce, M.D., 408 N. 11th Street, Wilmington
Robert C. Pope, M.D., Wilson Clinic, Wilson
Frank H. Richardson, M.D., Children's Clinic, Black Mountain
Wm. A. Sams, M.D., Box BB, Marshall
Wm. G. Spencer, Jr., M.D., 301 W. End Ave., Wilson
Robert F. Young, M.D., Halifax

37. Committee on Public Relations (3) (7 District Consultants) V-4
Edgar T. Beddingfield, M.D., Chairman, (4th)-(1959), P.O. Box 137, Stantonsburg
Ralph B. Garrison, M.D., (5th)—(1961), 222 N. Main Street, Hamlet
Wm. J. Senter, M.D., (6th)—(1960), 702 W. Jones Street, Raleigh
Graham A. Barden, Jr., M.D., (2nd), 414 Johnson Street, New Bern (Consultant)
Wm. H. Burch, M.D., (10th), Valley Clinic and Hospital, Bat Cave (Consultant)
Joseph S. Holbrook, M.D., (9th), Davis Hospital, Statesville (Consultant)
Joseph C. Howard, Jr., M.D., (3rd), Sampson County Hospital, Clinton (Consultant)
Fred K. Garvey, M.D., (8th), Bowman Gray, Winston-Salem (Consultant)
Walter Spaeth, M.D., (1st), 116 S. Road Street, Elizabeth City (Consultant)
David G. Welton, M.D., (7th), 403 N. Tryon Street, Charlotte (Consulant)

38. Committee on Physical Rehabilitation (6) V-4
George W. Holmes, M.D., Chairman, 2240 Cloverdale Ave., Winston-Salem
Charles H. Ashford, M.D., 603 Pollock Street, New Bern
F. P. Dale, M.D., Kinston Clinic, Kinston
J. Leonard Goldner, M.D., Duke Hospital, Durham
Arthur H. James, Jr., M.D., Box 1051, Sanford
George H. Wadsworth, M.D., 405 Colony Ave., Ahoskie

39. Committee on Rural Health and General Practitioner Award (12) V-5
Hugh A. Matthews, M.D., Chairman, 44 Academy Street, Canton
J. H. Cutchin, Jr., M.D., (9th), Sherrill's Ford
Rachel D. Davis, M.D., Consultant, 111 E. Gordon Street, Kinston
Philip E. Dewees, M.D., (10th), Box 217, Sylva
Wm. F. Eckbert, M.D., (7th), P.O. Box 317, Cramerton
Oscar Sexton Goodwin, M.D., (6th), Raleigh Road, Box 368, Apex
Wm. T. Grimesley, M.D., (8th), Box 357, Guilford College
R. Vernon Jeter, M.D., (2nd), Plymouth Clinic, Plymouth
Wm. Donald Moore, M.D., (5th) Box 7, Coats
John W. Nance, M.D., (3rd), 401 Cooper Drive, Clinton
B. E. Stephenson, M.D., (4th), P.O. Box 206, Rich Square
Wm. H. Romm, M.D., (1st), P.O. Box 1, Moyock

40. Committee on School Health and State Coordinating Service (9) VI-11
Charles H. Gay, M.D., Chairman, 1012 Kings Drive, Charlotte 7
Clarence Lee Corbett, M.D., Broad Street, Dunn
Jean Davidson Craven, M.D., 19 W. 3rd Ave., Lexington
Irma C. Henderson-Smathers, M.D., 1295 Merrimon Ave., Asheville
Wm. C. Hunter, M.D., 103 Pine Street, Wilson
Floyd L. Knight, M.D., 103 Hillcrest Drive, Sanford
Wayne S. Montgomery, M.D., Doctors Building, Asheville
Robert C. Pope, M.D., Wilson Clinic, Wilson
Wm. T. Rainey, Sr., M.D., Highsmith Hospital, Inc., Fayetteville

41. Committee Advisory to Student A.M.A. Chapters in North Carolina (7) II-8
Isaac E. Harris, Jr., M.D., Chairman, 1200 Broad Street, Durham
Edgar T. Beddingfield, Jr., M.D., P.O. Box 137, Stantonsburg
Elias S. Faison, M.D., 1012 Kings Drive, Charlotte
John W. Nance, M.D., Main Street, Clinton
Charles E. Flowers, M.D., Consultant, N. C. Memorial Hospital, Chapel Hill
Richard T. Myers, M.D., Consultant, 300 S. Hawthorne Road, Winston-Salem
James P. Hendrix, M.D., Consultant, Duke Hospital, Durham

42. Committee on Veterans Affairs (10) VI-12
Samuel L. Elfmon, M.D., Chairman, 225 Green Street, Fayetteville
Eben Alexander, M.D., Bowman Gray, Winston-Salem
Vernon L. Andrews, M.D., Box 407, Mt. Gilead
Wilmer C. Betts, M.D., 2109 Clark Avenue, Raleigh
Everett I. Bugg, Jr., M.D., Broad and Englewood, Durham
H. Francis Forsyth, M.D., Bowman Gray, Winston-Salem
John W. Foster, M.D., Veterans Administration, Winston-Salem
R. W. Postlethwait, M.D,. VA Hospital, Durham
John T. Sessions, Jr., M.D., UNC Dept. of Medicine, Chapel Hill
Charles R. Welfare, M.D., Professional Building, Winston-Salem

BULLETIN BOARD

COMING MEETINGS

Ninth Annual Winston-Salem Heart Symposium—Robert E. Hotel, Winston-Salem, October 3.

National Rehabilitation Association Conference—George Vanderbilt Hotel, Asheville, October 13-15.

Seventh District Medical Society — Concord, October 22.

Southeastern Section, Society of Experimental Biology and Medicine—Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, November 7 and 8.

University of North Carolina, Second Annual School of Medicine Symposium: Postgraduate Course in Cardiovascular and Cerebrovascular Disease—Chapel Hill, November 20 and 21.

Second Annual Symposium on Infectious Diseases—Kansas University Medical Center, Kansas City, Kansas, September 19.

Mississippi Valley Medical Society, Twenty-third Annual Convention — Hotel Morrison, Chicago, September 24-26.

American Medical Writers' Association, Fifteenth Annual Meeting—Hotel Morrison, Chicago, September 26 and 27.

Tennessee Valley Medical Assembly—Read House, Chattanooga, Tennessee, September 29-30.

American College of Surgeons, Forty-fourth Annual Clinical Congress — The Conrad Hilton, Chicago, October 6-10.

Academy of Psychosomatic Medicine, Fifth Annual Meeting—Park-Sheraton Hotel, New York City, October 9-11.

American Rhinological Society, Fourth Annual Meeting—The Palmer House, Chicago, October 17 and 18.

American College of Gastroenterology, Twenty-third Annual Meeting—Jung Hotel, New Orleans, Louisiana, October 20-22.

Second Oklahoma Colloquy on Aging: Arthritis and Related Disorders—University of Oklahoma, Oklahoma City, November 12-14.

NEW MEMBERS OF THE STATE SOCIETY

The following new members joined the Medical Society of the State of North Carolina during the month of July, 1958:

Dr. Paul Andrew Walters, 542 Wilkesboro Street, Mocksville; Dr. James Harris Hampton, Jr., Conrad Street, Lewisville; Dr. Albert N. Corpening, Youngsville; Dr. George Wilson Brice, Jr., 231 North Torrence Street, Charlotte 4; Dr. Rufus Wharton Gaul, 225 Hawthorne Lane, Charlotte 4; Dr. James Milton Tart, Jr., 564 A Wakefield Drive, Charlotte 7.

Dr. Damon Dalton Blake, N. C. Baptist Hospital, Winston-Salem; Dr. Billy Reid McLain, Troutman; Dr. Elmer Arthur Lodmell, 1308 Cornwallis Drive, Greensboro; Dr. Julian Sheppard Albergotti, Jr., P. O. Box 187, Derita; Dr. Thomas Henry McMillan, Jr., 1012 Kings Drive, Charlotte 7; Dr. Fred Neal Mitchell, 229 N. Torrence Street, Charlotte 4.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

Dr. H. H. Bradshaw, professor of surgery, has been appointed by the National Institutes of Health as special consultant to the National Cancer Institute. Also, he has recently been elected to the Board of Editors of Geriatrics as associate editor in surgery.

* * *

Dr. R. Winston Roberts, director of the Section of Ophthalmology, has been named secretary of the Southeastern Section of the Association for Research in Ophthalmology, Inc. The organizational meeting will be held in Winston-Salem in the winter. The association is designed to bring together those doing, or interested in, research in ophthalmology, and to acquaint those in the area of research in progress in the field.

* * *

Recently received research grants include:

"Study of florotic in the treatment of external otitis," $300 from the E. R. Squibb and Sons, Dr. John R. Ausband, assistant professor of otolaryngology;

"Study of the use of intermuscular pentothal," $1,500 from the Abbott Laboratories, Dr. LeRoy Crandell, director of the Section of Anesthesiology;

From the Forsyth Cancer Service, a sum of $1,069 to support the project of Dr. I. Meschan, professor of radiology, in irradiation chick embryos with different modalities of radiation to see if a method can be determined to detect effects of extremely small quantities of radiation and detecting differences in quality of radiation;

"Experimental implantation of bladder cancers to dogs," $1,068 from the Forsyth Cancer Service, Dr. William H. Boyce, associate professor of urology, and Dr. C. N. Edwards, instructor in urology.

"Transplantation of human tumors in the cheek pouches of hamsters," $1,296 from the Forsyth Cancer Service, Dr. J. H. S. Foushee, instructor in pathology.

NEWS NOTES FROM THE DUKE UNIVERSITY SCHOOL OF MEDICINE

Charles H. Frenzel has been named superintendent of Duke Hospital, succeeding F. Ross Porter, according to an announcement by Duke University President Hollis Edens.

Frenzel, who has been assistant superintendent since 1956, now has assumed his new duties as chief executive of the hospital.

Porter, a member of the hospital staff since 1930 and superintendent since 1949, will immediately devote full-time effort to the study and organization of a foundation for the Duke University Medical Center.

As assistant superintendent of Duke Hospital since April, 1956, Frenzel earlier served as director of the North Carolina Hospital Study Committee of the Commission on Financing Hospital Care. In this capacity, he directed the work of national field personnel in a pilot project conducted as part of a study of financing hospital care in the United States.

Frenzel's hospital administrative posts before coming to Duke were at City Memorial Hospital in Winston-Salem, where he was assistant director for a year and at Bedford County Memorial Hospital, Bedford, Virginia, where he spent two and a half years as administrator.

* * *

Six new faculty appointments and six promotions in the Duke University Medical School have been announced by University officials.

In the Medical School's biochemistry department, Dr. Eugene A. Davidson has been appointed an assistant professor. Dr. Herbert A. Saltzman has joined the department of medicine as an associate, and Capt. Alexander R. Margulis (CQ) has been named a visiting associate in the radiology department.

Two new associates in dentistry, Dr. John C. Kouns and Dr. Nathan R. Callaghan Jr., have been appointed to the surgery department staff. Dr. Wirt W. Smith has been appointed to the faculty position of associate in experimental surgery.

Promotions in the School of Medicine are as follows: Dr. William G. Anlyan from assistant professor to associate professor of surgery; Dr. Wayland E. Hull from assistant professor to associate professor of physiology; Dr. Albert J. Silverman from assistant professor to associate professor of psychiatry; Dr. Robert H. Dovenmuehle from associate in psychiatry to assistant professor of psychiatry; Owen W. Doyle from associate in radiology to assistant professor of radiology; and Dr. John M. Wallace from instructor to associate in medicine.

* * *

A new psychiatric ward has just been opened at Duke Hospital, Charles H. Frenzel, hospital superintendent, announced recently.

Marking an expansion of psychiatric in-patient service at Duke, the new "open ward" facilities are designed especially for patients who do not require intensive care and protection. Intensive care is provided on Meyer Ward, the hospital's "closed ward" for psychiatric treatment.

The new facilities are located on Cabell Ward, which was vacated upon completion of the latest addition to Duke Hospital last December. Renovation of Cabell was recently completed and similar work is now underway on Meyer.

Frenzel said that 10 beds on Cabell Ward were opened today. Additional beds will be made available as needed. Cabell and Meyer wards together can provide up to 60 beds for psychiatric patients.

* * *

Dr. Blaine S. Nashold, assistant professor of neurosurgery at the Duke University Medical Center and chief of the neurosurgery section at the Veterans Administration Hospital here, is principal investigator for two research projects to be conducted under grants made to Duke by the National Institutes of Health, U. S. Public Health Service.

Both projects deal with brain injury studies.

One grant of $3,984 was made for study of pressure changes that occur in the brain when injury or certain diseases cause abnormally large amounts of fluid to swell the brain tissues. Working with experimental animals, Dr. Nashold will record normal pressures in various parts of the brain by electronic means and then will make comparable measurements in cases of brain injury and simulated disease.

Dr. Nashold's second current project is an anatomic study of what happens to certain brain cells related to consciousness when injury occurs. This work is supported by an NIH grant of $2,415.

* * *

Some 15 scientists who are specialists in the fields of aging and radiation injury attended a special three-day conference at Duke University Medical Center last month.

Purpose of the meeting was to study the differences and similarities between the psychologic effects of normal aging and those of exposure to radiation.

Meeting under sponsorship of the Atomic Energy Commission and the National Institutes of Health, the scientists discussed research studies that have suggested a similarity between the effects produced by normal aging and by radiation. Dr. Ewald W. Busse, head of the psychiatry department at Duke, is chairman of the study group, which is one of six established last February under AEC-NIH auspices.

* * *

A person's blood type may have an indirect bearing on his chances of becoming a manic-depressive.

Research being conducted by a Duke University psychiatrist has shown that manic-depressive illness, a mental disorder marked by periodic swings from extreme elation to rock-bottom despair, is found with significantly greater frequency in persons who have type "O" blood than in the population as a whole.

Dr. Joseph B. Parker, Jr., associate professor of psychiatry at the Duke Medical Center and chief of the Psychiatric Service at the Veterans Administration Hospital in Durham, is conducting the

study with financial support from the National Institutes of Health, U. S. Public Health Service.

Facilities for Dr. Parker's study are being provided by the Veterans Administration Hospital. The Public Health Service research grant was administered through Duke University.

* * *

Duke University has received a $20,000 grant from the National Science Foundation to support a brain research project at the University's Medical Center.

The basic research investigation, entitled "Interdependence of Amygdala and Hypothalamus," is concerned with study of the relationships between these two parts of the brain. Dr. Talmadge L. Peele, associate professor of anatomy at Duke, is principal investigator for the project.

* * *

Duke University has received a grant of $18,240 from the American Cancer Society to support basic research studies of the hormone ACTH, or corticotropin.

Dr. Frank L. Engel, professor of medicine at the Duke Medical Center, is principal investigator for the project. Effective July 1, the grant is one of seven worth a total of $165,814 awarded by the American Cancer Society during the past year to support Duke medical research, according to Dr. W. W. Shingleton, president of the Society, Durham County Chapter.

Other Cancer Society grants made to Duke during the past year are as follows: three awards totaling $107,956 for studies of the possible role of viruses as a causative agent in cancer, with Dr. Joseph W. Beard as principal investigator; $13,624 to study the metabolic control of growth, with Dr. William L. Byrne as principal investigator; $17,369 for study of hematologic effects of various chemicals, with Dr. R. Wayne Rundles as principal investigator; and $8,625 to study the influence of hormones on fat metabolism, growth and diabetes, with Dr. Engel as principal investigator.

National Nephrosis Foundation

North Carolina Chapter

The North Carolina Chapter of the National Nephrosis Foundation is accepting applications for research grants from investigators in North Carolina. Applications, which may be obtained from the Medical Advisory Board of the chapter, must be completed and sent to the Board on or before October 1, 1958. Thereafter applications will be considered every four months, the "deadlines" being October 1, February 1 and June 1 of each year.

The grants will be made to support both basic and applied research in the field of nephrosis, nephritis and allied kidney disorders. They are designed to help investigators test new ideas, to provide needed equipment or to assist in established research programs. For the present, only applications for less than $1000 will be considered.

For further information and application blanks, address all inquires to Jerome S. Harris, M.D., Chairman, Medical Advisory Board, Duke Hospital, Durham, North Carolina.

Seventh District Medical Society

The Seventh District Medical Society will meet in Concord on October 22. Speakers for the afternoon session will be Dr. Ivan L. Bennett, Jr., of Johns Hopkins University and Dr. Jules Hirsch of the Rockefeller Institute. Dr. Ralph F. Bowers, chief surgeon of the Veterans Hospital, Memphis, Tennessee, will speak in the evening.

President Lenox D. Baker and Executive Secretary James T. Barnes of the State Society are expected to be present.

Edgecombe-Nash Medical Society

The Nash-Edgecombe Medical Society held its regular monthly meeting in Rocky Mount on August 13. Dr. A. W. Hedgepeth, program chairman, presented Dr. William Peete of the Department of Surgery, Duke University School of Medicine, who discussed cases illustrating interesting points in therapeutics.

News Notes

Dr. George W. Holmes has announced the association of Dr. James E. Robinson in the practice of orthopaedic and traumatic surgery at 206 Professional Building, Winston-Salem.

* * *

Dr. John H. Monroe has announced the new location of his office for the continued practice of obstetrics and gynecology at Spotswood Apartments, 415 North Spring Street, Winston-Salem.

* * *

The Southern Medical Association has issued invitations to attend the formal opening of its new headquarters office building at 2601 Highland Avenue, Birmingham, Alabama, on Sunday, September 7, from 2 to 5 p.m.

Southern Regional Education Board

State legislators from 16 Southern states will gather in Charleston, South Carolina, on August 21-23 for a three-day work conference on "Financing Higher Education," sponsored by the Southern Regional Education Board.

Dr. Robert C. Anderson, director of SREB, pointed out that this would be the seventh such annual conference, and the first to be held in South Carolina.

Governor Luther H. Hodges of North Carolina, chairman of SREB, will address the work conference on its opening day.

Other highlights of the three-day session will be a keynote address on "The South's Future Economy and Its Implications for Higher Education," by Dr. Harold Clark, educational economist from Columbia University; an open legislative hearing during which a legislative committee will quiz

several educators on higher education needs and financing; and a closing address by Governor James P. Coleman of Mississippi.

Mississippi Valley Medical Society

The twenty-third annual meeting of the Mississippi Valley Medical Society will be held at the Hotel Morrison, Chicago, September 24, 25, 26 under the presidency of Dr. Joseph C. Edwards of Washington University School of Medicine, St. Louis.

All ethical physicians are cordially invited and urged to attend, the entire program being geared to especially appeal to those in general practice.

The fifteenth annual meeting of the American Medical Writers' Association will be held in the same hotel on September 26, 27. A complete program of either or both meetings may be obtained from Harold Swanberg, M.D., Secretary, W. C. U. Building, Quincy, Illinois.

Dr. Ethan Allan Brown, M.R.C.P., L.R.C.P., of Boston, editor, Annals of Allergy and past president of the American College of Allergists, Academy of Psychosomatic Medicine and Academy of Tuberculosis Physicians, has been declared winner of the 1958 Mississippi Valley Medical Society Essay Contest for his paper, "A Program for the Treatment of Subacute Bronchial Asthma." Dr. Brown will present his paper at the annual meeting of the Mississippi Valley Medical Society to be held in Chicago, September 24-26.

Oklahoma Colloquy on Aging

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14 and 15. It will be devoted to Arthritis and Related Disorders and is under the joint sponsorship of the Department of Medicine, University of Oklahoma, the Division of Postgraduate Education, Geigy Pharmaceuticals, Wyeth Laboratories, The Upjohn Company, Pfizer Laboratories, and Schering Corporation.

Registration will be open to all physicians. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

Southeastern Surgical Congress Prize

The Southeastern Surgical Congress has announced its annual Scientific Paper Award for 1959. The best unpublished contribution on surgery or allied subjects will be awarded $100 and expenses for the author to attend its next annual meeting in Miami Beach, Florida. The second place winner will receive $50 cash and the third place winner will receive $25 cash.

The contest is open to residents in A.M.A. approved residences in the states of Alabama, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Three copies of the paper should be sent before December 1, 1958, to the councilor of the state in which the resident is living. The Councilor's name and address may be obtained by writing to the home office of the Southeastern Surgical Congress at 1002 Hurt Building, Atlanta 3, Georgia.

The winner will present his paper before the Congress Assembly in Miami Beach, Florida, March 9-12, 1959.

The Southeastern Surgical Congress reserve the right to submit the paper to the Editorial Board of its publication, *The American Surgeon*, for publication. If the Editorial Board rejects the paper, the author is then free to seek publication elsewhere. All manuscripts must be typewritten in a form suitable for submission for publication.

American College of Gastroenterology

The twenty-third annual convention of the American College of Gastroenterology will be held at the Jung Hotel in New Orleans, Louisiana, on October 20, 21, 22.

On October 23, 24 and 25, immediately following the Convention, Dr. Owen H. Wangensteen of Minneapolis, Minnesota and Dr. I Snapper of Brooklyn, New York, will again be the moderators of the annual course in postgraduate gastroenterology. The sessions will be held at the Jung Hotel and in the Auditorium of the Louisiana State University School of Medicine. Attendance at the Course will be limited to those who have registered in advance.

As a part of this year's sessions, a one-day regional meeting will be held at the University Hospital in Mexico City on October 27, and members of the College from that city will present papers.

Copies of the program and further information concerning the postgraduate course and Mexico regional meeting may be obtained by writing to: American College of Gastroenterology, 33 West 60th Street, New York 23, New York.

American College of Surgeons

The forty-fourth annual Clinical Congress of the American College of Surgeons will be held in Chicago, October 6-10. Headquarters will be The Conrad Hilton.

More than 10,000 surgeons, physicians, students and related medical personnel will attend this largest meeting of surgeons in the world to keep informed on progress in surgery through postgraduated courses, research forums, panel discussions, closed-circuit operation telecasts, medical motion pictures, cine clinics, and exhibits.

Major addresses will be made by Dr. Newell W. Philpott, Montreal, incoming president of the college, Dr. George J. Curry, Flint, Michigan, authority on care of the injured, and Dr. Gunnar Thorsen, Stockholm, Sweden, distinguished surgeon and writer in the field of essential body fluids.

On the final evening, October 10, more than 1,100 Initiates will be presented for fellowship in the college, honorary fellowships conferred, and officers inaugurated.

Continuing the medical student education program launched by the Board of Regents two years ago, 37 medical students will attend this Congress as guests of the college. Students are selected by vote of their classmates and medical colleges sending representatives to the congress are rotated each year.

National Foundation for Infantile Paralysis

September 1 and December 1 are the current deadlines for applications to the National Foundation for postdoctoral fellowships in research and academic medicine or in the clinical fields of rehabilitation, orthopedics, and preventive medicine. Applications for fellowships in the medical associate field of physical therapy teaching and occupational therapy teaching should also be filed by these dates. A spring date of March 1 is also provided.

Financial support of the fellow varies according to his previous education, his professional experience, marital status, and number of dependents. Compensation to the institution is arranged according to the program undertaken. For a full academic program, tuition and fees are allowed; for other programs, a sum not to exceed $1,250.00 per year (includes tuition) is provided.

For further information write to: Division of Professional Education, National Foundation for Infantile Paralysis, 301 East 42nd Street, New York 17, New York.

American Rhinologic Society

The American Rhinologic Society will hold its fourth annual meeting in the Palmer House, Chicago, October 17-18.

Among the topics to be discussed will be pulmonary and nasal physiology, laboratory and clinical aspects of bone transplants, hump removal, roof repair, and nasal process corrections.

Dr. Russell I. Williams of Cheyenne, president of the society, will preside. Dr. Guy L. Boyden, professor of otolaryngology, University of Oregon Medical School, Portland, will be the guest of honor.

For further information, write to Dr. Robert M. Hansen, secretary of the society, 1735 North Wheeler Avenue, Portland 17, Oregon.

International College of Surgeons

The second anniversary of the formation of World Federations of Surgeons on a continental basis within the structure of the International College of Surgeons will be observed in Chicago, Friday, September 19.

At that time, the International College of Surgeons will also hold its biennial installation of international officers and officers of the United States and Canadian Sections of the College. The ceremonies will take place at a dinner in the Palmer House. The Honorable Benjamin A. Cohen, Ambassador, Under-Secretary, United Nations, New York, will be the principal speaker, covering the role of the medical and surgical profession in cementing international relationships.

Dr. Henry W. Meyerding of Rochester, Minneapolis, will be installed as president of the parent organization, succeeding Dr. Carlos Gama of Sao Paulo, Brazil. Dr. Edward L. Compere of Chicago will become president of the United States Section, succeeding Dr. Curtice Rosser of Dallas.

Dr. Raymond W. McNealy of Chicago will be the banquet chairman and Dr. Morris Fishbein of Chicago will be the toastmaster.

Further information may be had by writing to International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Illinois, U.S.A.

American Urological Association

The American Urological Association offers an annual award of $1,000 (first prize of $500, second prize $300, and third prize $200) for essays on the result of some clinical or laboratory research in urology. Competition is limited to urologists who have been graduated not more than 10 years, and to hospital interns and residents doing research work in urology.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Chalfonte-Haddon Hall, Atlantic City, New Jersey, April 20-23, 1959.

For full particulars write the Executive Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be in his hands before December 1, 1958.

Institute of Life Insurance

The Life Insurance Medical Research Fund has given 81 awards totalling $1,098,680 in support of heart research during the coming year. Fifty-seven of the awards are in the form of grants to research institutions—medical schools, universities and hospitals—for specified projects in basic heart research. These institutions are located in 18 states, the District of Columbia, Puerto Rico, four Canadian provinces and The Netherlands.

Two of these grants went to Duke University and one to the University of North Carolina.

Department of the Army

A new polyvalent influenza vaccine giving protection against Asian, Swin, A, A-prime, and B strains of the disease will be administered during October 1958 to all U. S. Army personnel on active duty, the Army Surgeon General's Office announced recently.

Vaccination on a voluntary basis will be offered in oversea areas to those dependents of U. S.

military personnel and those civilian employees of the military services and their dependents for whom Army medical facilities have logistic responsibility.

The new vaccine will be given as a single 1.0 cc. subcutaneous injection to service men and to all others aged 13 and over.

Children aged 6 through 12 may be given two subcutaneous doses of 0.5 cc. each at an interval of one week. Vaccination of children younger than six years is not usually recommended as a routine procedure, though if vaccination is indicated, children aged 3 months through 5 years may be given two 0.1 cc. doses intradermally one week apart.

U. S. Department of Health, Education, and Welfare

A technique for evaluating the effects of heart-valve surgery while an operation is in progress has been developed by a team of surgeons and cardiologists at the Public Health Service's National Heart Institute in Bethesda, Maryland.

With this technique, direct measurements are made of the heart's output of blood and of differences in pressure on each side of abnormally narrowed, or "stenosed," valve openings just before and after these openings are surgically enlarged.

The new technique allows a more precise and immediate evaluation of the results of heart valve surgery than has previously been possible with conventional techniques, by which pressures and output of blood are measured before and after an operation but not during it.

Veterans Administration

Effectiveness of different kinds of surgery for stomach and intestinal ulcers will be studied immediately in 11 Veterans Administration hospitals throughout the country. Dr. Lyndon E. Lee, VA coordinator for research in surgery, in Washington, D. C., announced that the study will be under chairmanship of Dr. R. W. Postlethwait of the Durham, North Carolina, VA hospital.

"The survey should show which operations are applied to which patients with what results," Dr. Lee said. "When these findings are available, we will try to develop information revealing which operations promise the greatest benefit to individual patients under certain sets of circumstances."

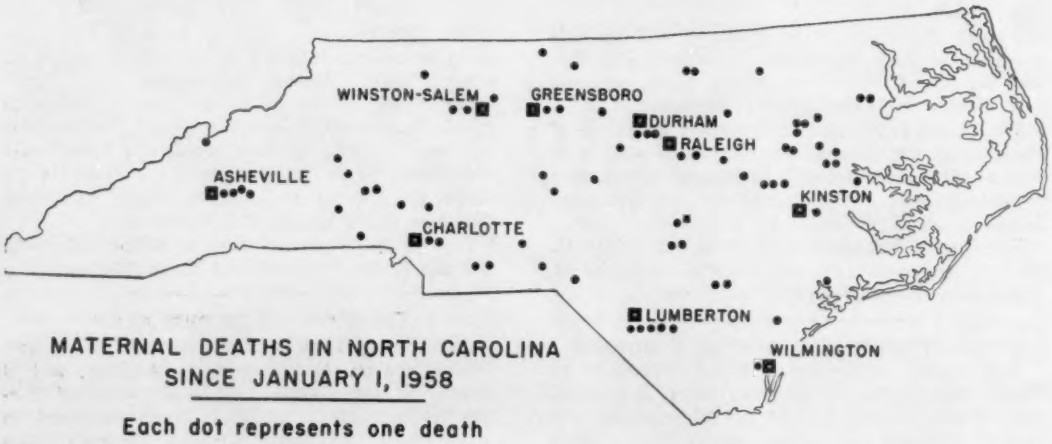
Consultants for the project are Dr. Isidor Ravdin, who is John Rhea Barton professor and chairman of the department of surgery at the University of Pennsylvania, and Dr. Lester Dragstedt, director of the department of surgery of the University of Chicago.

* * *

Half of the nearly 2,000 war-blinded veterans of the Korean conflict and World War II hold jobs, even though many have other physical handicaps, a Veterans Administration study released today indicates.

This first comprehensive study of rehabilitation of the war-blinded by the VA shows most of the nation's war veterans without useful sight have rebuilt their lives.

The volume contains much detailed information never before available to those who deal with the blind. It is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at a price of $1.50 per copy.



MATERNAL DEATHS IN NORTH CAROLINA
SINCE JANUARY 1, 1958

Each dot represents one death

BOOK REVIEWS

Soldier In White; The Life of General Miller Sternberg. By John M. Gibson, Librarian, N. C. State Board of Health. 277 pages. Price, $6.75. Durham, North Carolina: Duke University Press, 1958.

This biography of General Sternberg is a worthy companion to Mr. Gibson's life of Gorgas, **"Physician to the World,"** which was also published by the Duke Press, in 1950. Indeed, the two men had so many similar traits, and their careers were so much alike, that it is easy to understand that Mr. Gibson became interested in General Sternberg while working on his life of Gorgas. Both men entered the U. S. Army Medical Corps soon after graduating from medical school; each served as Surgeon General of the U. S. Public Health Service; and each contributed largely to the conquest of yellow fever, both men were devoted husbands, and both possessed the finest qualities of character.

As with Gorgas, Mr. Gibson has drawn a splendid pen picture of Sternberg—one that leaves the reader with the impression that he would like to have known him personally. The book can be heartily recommended as a notable contribution to medical history.

Atrial Arrhythmias, Digitalis and Potassium. By Bernard Lown, M.D., and Harold D. Levine, M.D. 222 pages. Price, $6.90. New York: Lands Berger Medical Books, Inc.

The confluence of the electrocardiograph, the artificial kidney, and the flame photometer has brought the delineation of cardiac arrhythmias to a state of knowledge undreamt of. The authors of this book have been among the leaders in such studies, and it is indeed fitting that they have collected their work in such a handy volume. For this is a most appropriately sized book, being the approximate width of **The Readers Digest** and ¾ inch longer. This is a happy coincidence because it should be read by any physician who has used digitalis or who intends to use it. Despite the fact that the authors suffer considerably from repetition compulsion in presenting their evidence, taken in small doses this book can be assimilated to the benefit of both physician and patient. Its size makes it a worthy substitute for **The Readers Digest** and that periodical's usual place in the home. In this way the physician can read the book without interruption within a few weeks.

The most important point made by the authors is the significance of measures which deplete body potassium, thereby aggravating pre-existing myocardial disease. With attention now focusing more and more toward the extracardiac regulation of congestive heart failure, the physician must be more careful than ever before in ordering drugs. Chlorothiazide, the mercurial diuretics, the carbonic anhydrase inhibitors, and adrenal steroids may all induce potassium depletion and so aggravate pre-existing disease. In addition work is well along in the synthesis of specific synthetic antagonists to aldosterone, the sodium retaining hormone of the adrenal cortex, which contributes significantly to fluid retention in a variety of conditions. With this in mind, let it again be said that any physician who has used digitalis or who intends to use it should have a more than passing familiarity with this handy volume.

Animal Disease and Human Health. Edited by Otto V. St. Whitelock. Annals of the New York Academy of Sciences, 1958, volume 70, pp. 277-762.

This monograph reports the proceedings of the New York Academy of Science Conference on the zoonoses, the catagory of diseases of lower animals transmissible to man. The more common of the zoonoses such as brucellosis, psittacosis, rabies, leptospirosis, toxoplasmosis, and cat-scratch fever have been discussed in detail.

It is reported in this monograph that of the more than two hundred communicable diseases of animals, about half are known to be transmissible from animal to man. There are more than one hundred parasites that affect both man and animals.

The reader is impressed with the magnitude of interrelationships between animal and human health. The conference also makes clear that there can no longer be separate and distinct catagories of animal as opposed to human disease. The consensus of those participating in the conference seems to be that there is great need for a well integrated, multidisciplinary team approach for the future study of the zoonoses.

The Month in Washington

For the first time since the idea was proposed more than seven years ago by President Truman and Oscar Ewing, legislation to tack a hospital and medical service program onto social security has received a thorough airing before a Congressional committee.

For 11 days the House Ways and Means Committee listened to testimony on this and other suggested changes in the law. The hospitalization plan—now identified as the Forand bill, for its sponsor, Representative Aime J. Forand (D., R.I.)—was by far the most controversial issue. It came up repeatedly and each time was the signal for

either sharp questions or praise from Mr. Forand, depending on which the particular witness thought about the bill.

At the end of the hearings, it appeared that a majority of the committee was not inclined to press for enactment of the Forand bill, although there remained the possibility of a change in sentiment. At present, the prospect is that a bill may be enacted to raise both social security and old-age assistance payments, with a $600 increase in the amount of taxable salary or self-employment income to meet the extra OASI cost; public assistance payments came out of general revenue.

What did the Forand hearings produce?

For one thing, the proponents and opponents lined up in columns to be identified. The one important exception was the American Hospital Association. The A.M.A. specifically opposed the Forand bill "at this time," but left itself room for maneuvering.

The hospital witness, Ray Amberg, president-elect of A.H.A., and Dr. James P. Dixon, chairman of its committee to study health needs of the aged, said their conclusion was that federal help of some sort was needed to finance the health care of the aged, and that the social security approach might be the ultimate decision.

However, for the present the hospital spokesmen proposed that the Ways and Means Committee set up a special advisory committee—health personnel and others—to bring together all information on the health problems of the aged, study the data, and make recommendations to the committee before January 1, 1960.

American Medical Association led the parade of opponents of the Forand bill, and its witnesses, Drs. Leonard Larson, a trustee, and Frank Krusen of the Mayo clinic, were subjected to close but not unfriendly questioning by Mr. Forand.

At one point Dr. Larson, the new chairman of the A.M.A. Board of Trustees, told Mr. Forand: "As chairman, I shall devote all my energies to solving this problem and other problems of medical care plans in general. This is my primary interest. I rise or fall on what happens in this field."

Lined up with the A.M.A. in opposing the Forand plan (in addition to the A.H.A.) are the American Dental Association, Blue Shield, the insurance industry in general, the U. S. Chamber of Commerce, and a number of other business and professional groups.

In Memoriam

Mahlon Wingate DeLoatch, M.D.

Mahlon Wingate DeLoatch was born in Northampton County, North Carolina, November 9, 1901, the son of John Littleberry DeLoatch and his wife, Sarah Elizabeth Sykes DeLoatch. He died at Tarboro, North Carolina, April 12, 1958, of coronary disease of about seven years' duration.

He attended public school at Severa, North Carolina, and received his A.B. degree from Wake Forest College in 1926. He received his Doctor of Medicine degree from the Medical College of Virginia in 1928. He interned at Norfolk General Hospital from July, 1928, through June, 1929. Upon completion of his internship, he became associated with the late Dr. Ben Nicholson of Enfield, North Carolina, where he remained through October 1929. He became associated with the Tarboro Clinic November 1, 1929, and soon thereafter became a member of the staff of Edgecombe General Hospital.

He was married June 28, 1930, to Elizabeth B. Hales of Norfolk, Virginia. There were two children born of this union—Mahlon Wingate, Jr., and Elizabeth Hales. Mrs. DeLoatch and the two children survive him.

He was a member of Old Zeta Chi Medical Fraternity. He was a member of Edgecombe-Nash Medical Society, the Fourth District Medical Society, the Medical Society of the State of North Carolina, and the American Medical Association at the time of his death. Early in life he was a member of the First Baptist Church of Severa, North Carolina, and after his removal to Tarboro he became a member of the First Baptist Church of Tarboro, where he was serving as deacon when he died.

As a man he was always well poised. He was even-tempered and jovial at all times. He never showed irritation or hurry. He had a great host of friends. If he knew of any enemies that he had, he was never heard to make a caustic remark about them. I never heard him speak ill of anyone and have never seen him when he showed evidence of weariness. He liked the general practice of medicine and was particularly fond of obstetrics. He was a tireless worker. He was successful in his business ventures. He provided well for his family. He was a good citizen, always standing for what he thought was best for his community.

In the practice of medicine he deserved a rating of excellent. We will not find one who is superior, and his equals will be few.

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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

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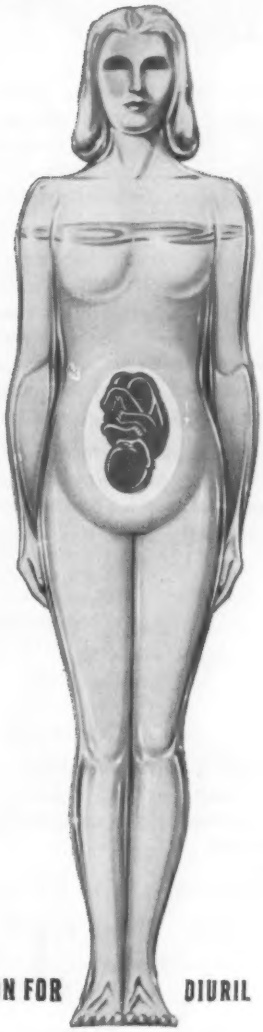

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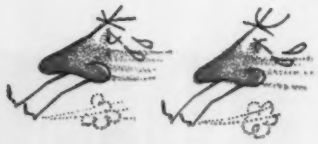

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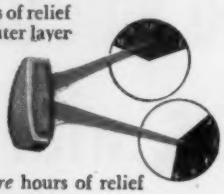

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references:
1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958
2. Editorial: *New England J. Med.* 258:48-49, 1958.

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Ford, R.V., and Moyer, J.H.: Rauwolfia Toxicity in the Treatment of Hypertension: Some Observations on Comparative Toxicity of Reserpine, a Single Alkaloid, and Alseroxylon, a Compound Containing Multiple Alkaloids, Postgrad. Med., January, 1958.

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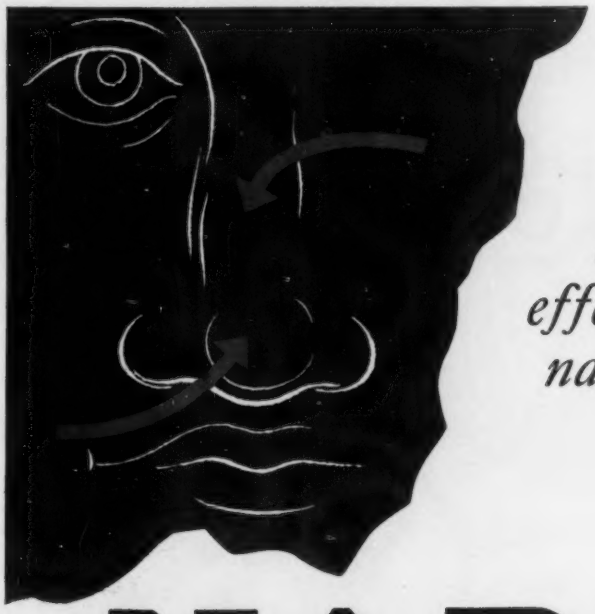

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Reference: 1. J.A.M.A. 158: 386 (June 4) 1955.

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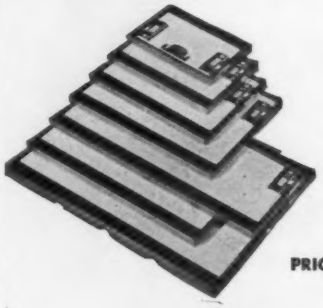

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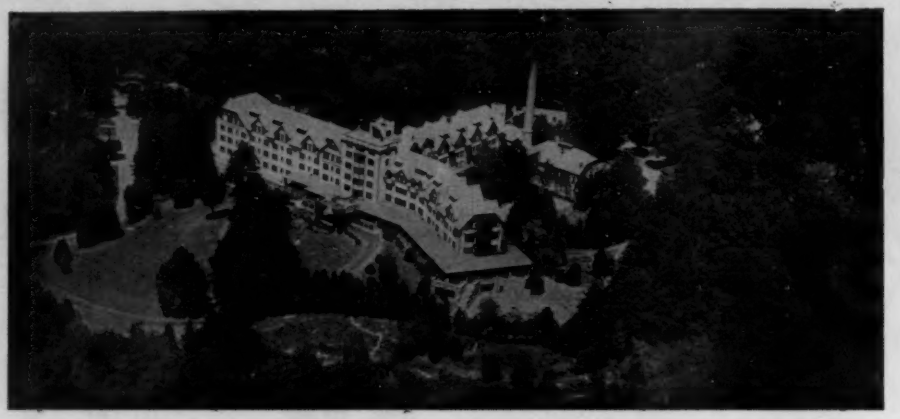

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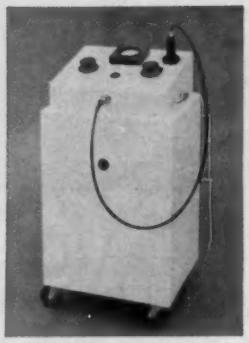

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Ames Company IX
Anclote Manor LIV
Appalachian Hall XLVIII
Ayerst Laboratories XLIV
Brawner's Sanitarium XLV
Brayten Pharmaceutical Company XXIII
Bristol-Myers Company XLIII
Broadoaks Sanatorium L
Burroughs-Wellcome & Company ..... XV, XLII
Carolina Surgical Supply Co. LIV
J. L. Crumpton XXX
Davies, Rose & Co. XLIX
General Electric X-Ray Department XLIII
Chas. C. Haskell & Co. XI
Highland Hospital XLV
Hospital Saving Assn. of N. C. XXVII
Keeley Institute XLVI
Lakeside Laboratories ..... 2nd Cover
Lederle Laboratories ..... XXVIII, XXIX, XXXV
Eli Lilly & Company ..... XXVI, Front Cover
Mead Johnson & Company XX
Medical-Dental Credit Bureau XLIV
Merck, Sharp & Dohme ..... XIX, XXXII, XXXIII XXXVI, XXXVII
Mutual of Omaha XIV
P. M. Professional Management LII
Parke, Davis & Co. ..... LVI, 3rd Cover
Physicians Casualty Association Physicians Health Association LIV
Physicians Products Company XVIII
Pinebluff Sanitarium I
Ricker Laboratories XXXVIII
A. H. Robins Company ..... III, XII, XXIV
J. B. Roerig & Co. ..... VI, XXII, XLVII
Saint Albans Sanatorium XLVIII
Schering Corporation XXV
Sealy of the Carolina, Inc. XLIX
G. D. Searle & Co. ..... VII, XXXI
Smith-Dorsey Company XXXIV
Smith, Kline & French Laboratories ..... 4th Cover
E. R. Squibb & Sons Div. of Olin Mathiesen Chem. Corp. XVII
St. Paul Fire and Marine Insurance L
Thompson Homestead School XLVI
The Tilden Company XXXIX
Today's Health LII
Tucker Hospital LI
U. S. Savings Bond LIII
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Wachtel's Incorporated LII
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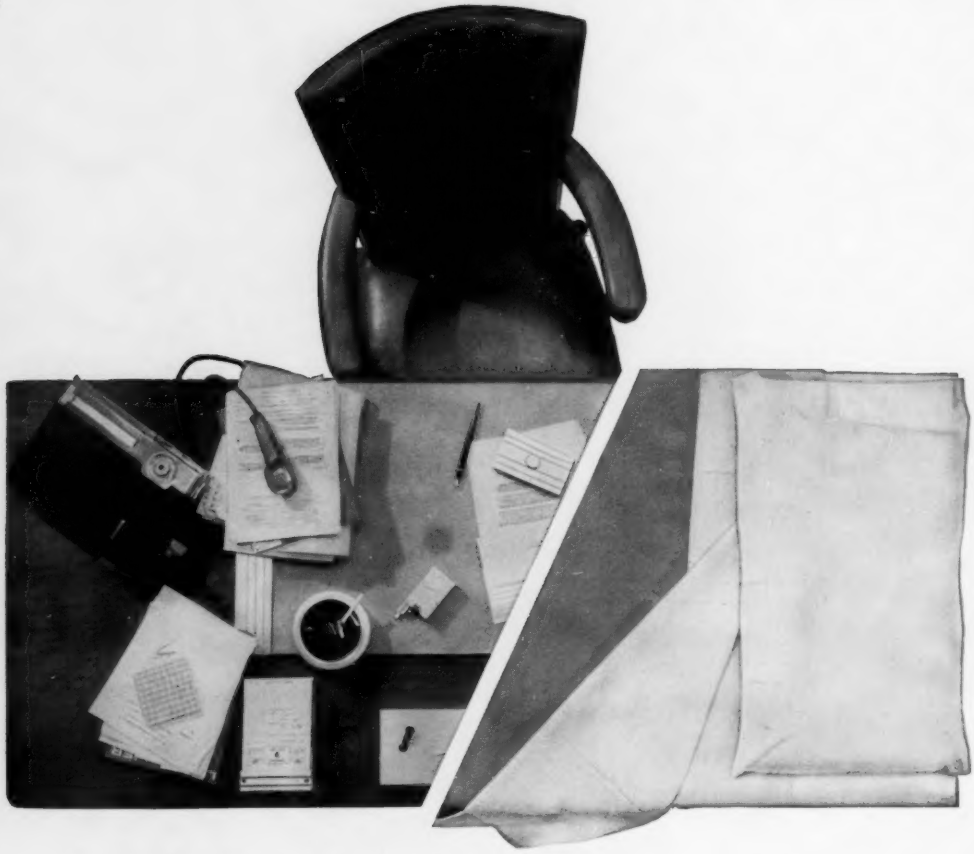

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